

JPRS 76404

10 September 1980

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2041



FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

10 September 1980

EAST EUROPE REPORT
ECONOMIC AND INDUSTRIAL AFFAIRS
No. 2041

CONTENTS

INTERNATIONAL AFFAIRS

- Problems in CEMA Economic Cooperation Viewed
(Bela Szikszay; PARTELET, Aug 80) 1

CZECHOSLOVAKIA

- Financing in the Planned Management System Discussed
(Vladimir Kyzlink; HOSPODARSKE NOVINY, May 80) 9

- Long-Term Trends in Improving Management Quality
Discussed
(Vaclav Vertelar; HOSPODARSKE NOVINY, 4 Jul 80) 15

- Preparations for Seventh Five-Year Plan in Coal,
Energy Viewed
(Josef Farka; HORNIK A ENERGETIC, 17 Jul 80) 27

- Haman Views Energy, Fuels Development, Conservation
(Josef Haman; RUDE PRAVO, 10 Jul 80) 37

GERMAN DEMOCRATIC REPUBLIC

- Academician Reviews Process of GDR Industrial Growth
(Helmut Koziolk; EINHEIT, May 80) 47

- Effects of GDR-USSR Economic Plan Coordination Discussed
(Various sources, various dates) 57

West German Commentary
GDR Economist's Discussion, by Willi Kunz

HUNGARY

Survey on Financial, Economic Results Published (Laszlo Galfk, Gabor Posch; FIGYELO, 16 Jul 80)	69
Problems in Economic Development Policy Examined (Andras Vertes; FIGYELO, 30 Jul 80)	75
Situation of Consumer Goods Supply Described (Peter Toke; HETI VILAGGAZDASAG, 19 Jul 80)	80

POLAND

Alternative Technology Exploitation Possibilities Indicated (Editorial Report)	83
--	----

ROMANIA

Deputy Chemical Minister Reviews Progress of 1965-1980 Era (Iustin Rogoz Interview; FLACARA, 24 Jul 80)	84
Shortcomings in Zootechnical Sector (Emil Petrache: ERA SOCIALISTA, 5 Jul 80)	89
Typification Proposed for Agricultural Machinery Industry (Hera C. Bucur, Ion Hera Bucur; REVISTA ECONOMICA, 25 Jul 80)	96

YUGOSLAVIA

Status, Outlook for Natural Gas Production (Radmila Jovanovic; PRIVREDNI PREGLED, 5-8 Jul 80)	102
Status of Merchant Fleet Described (PRIVREDNI PREGLED, 17 Jul 80)	109
Serbian Enterprise Cooperation With Kosovo Economy (BORBA, 23 Jul 80)	111
Macedonia Outlines Plans for Agricultural Development (BORBA, 7 Aug 80)	112

Briefs

Gas Consumption, Imports	114
Textile Exports	114
Rice Production	114
Macedonian Coal Production	114
Vojvodina Land Reduction	115
Allocation of Foreign Exchange	115

PROBLEMS IN CEMA ECONOMIC COOPERATION VIEWED

Budapest PARTELET in Hungarian No 8, Aug 80 pp 20-25

[Article by Bela Szikszay, a Central Committee deputy department chief: "Timely Questions of the Economic Cooperation of CEMA Countries"]

[Text] This year is the last year of the current medium range economic plans of the CEMA countries. Preparation of the economic plans for the next period--the years 1981-1985--is under way. Intensive work is being done within the frameworks of CEMA and in the system of bilateral contacts to harmonize the economic plans of the several countries and to coordinate the prescriptions. The present and future economic development of the CEMA countries depends to a significant degree on how economic contacts develop among them, at what rate and in what areas socialist economic integration develops. As a result of all this it is justified to briefly review the development of the economic cooperation of the CEMA countries, analyze its achievements and problems and sketch the development to be expected and the tasks connected with socialist economic integration.

I.

In the period between 1976 and 1980 also the economic contacts of the CEMA countries developed constantly and represented an important base for the general development of the member countries.

For example, mutual exchange of goods between CEMA member states increased by 7.7 percent in 1979, that of machines and equipment therein by 11.6 percent, which is a good bit higher than the increase in their production. (The volume of national income produced last year was 2.5 percent higher and industrial production was 3.7 percent higher than the preceding year.) Mutual deliveries continue to cover the majority of the import needs of the CEMA countries for fuel, raw materials, primary materials, machines and equipment. Within all import of member countries the mutual delivery of goods covered 68 percent of the petroleum, about 70 percent of the iron ore, 87 percent of the pig iron, more than 60 percent of the rolled goods and more than two thirds of the machines and equipment and consumers goods imported.

In the course of past years international manufacturing specialization and cooperation became ever more important factors in increasing the economic efficiency of the CEMA member countries and in the development of their economic cooperation. Deliveries taking place on the basis of specialization now exceed 20 percent of the trade within CEMA. Their share is highest in the area of machines and equipment where the share of specialized products reaches 35 percent of the total export of these products. Good and forward looking forms of specialization and cooperation have developed in the areas of computer technology, the production of agricultural and construction industry machines and the manufacture of highway vehicles.

All this shows that our economic contacts have played an important stabilizing role in the economic development of the CEMA countries and that the advantages of socialist integration are gradually unfolding.

The advantageous aspects of the development of economic cooperation can be observed in the development of the economic contacts of Hungary and the other CEMA countries also. Our foreign trade with these countries developed continuously during the Fifth 5-Year Plan; at comparable prices our trade is expected to have expanded by 30 percent between 1976 and 1980. The commodity structure of trade suits the nature of the Hungarian national economy. Materials make up 52 percent of our import while two thirds of our export consists of products of the processing industry, primarily the machine industry.

From the viewpoint of the constant development of our national economy in the world economic situation which has developed it is of great significance that we can obtain from CEMA countries half of all of our imports of a material character including 93 percent of our import of energy sources. It is an important stabilizing element of our economic development that the CEMA countries purchase three quarters of all our machine export and half of our export of foodstuffs--on the basis of planned harmonization.

Our manufacturing specialization and cooperation contacts developed well in the present 5-year plan period (primarily those with the Soviet Union but also those with the GDR and Poland) and this indicates the strengthening of the integration character of our cooperation. Deliveries made on the basis of longer range specialization and cooperation contracts now make up one quarter of all our CEMA trade and 35-40 percent of our mutual machine trade. Within this it is favorable for us that as a result of specialization thereon other CEMA countries satisfy a large part of our needs for heavy industry products which require much material.

In addition to the favorable results which show development there are also a number of problems in our economic cooperation and in the development of socialist economic integration. These appear most comprehensively in the fact that the growth rate of economic contacts is gradually moderating as compared to the earlier period. It is probable that the growth in the mutual trade of the CEMA countries between 1976 and 1980 (expressed in percent growth)

will be half of what it was 5 years earlier. The gradual moderation in the growth of mutual contacts is expressed in the development of contacts between our homeland and the other CEMA countries also--the growth rate of our foreign trade (30 percent) is a good bit lower than in the preceding 5 years (70 percent).

The conditions for expanding mutual contacts have become a good bit more exacting also. Within the economic community of the socialist countries the energy and raw material exporter countries can satisfy a smaller part in volume--and at growing prices--of the extra needs of the importer countries than in the earlier period. In the new situation the level which has developed for mutual trade in fuels and raw materials can often be maintained only under conditions where the importer countries make investment contributions which involve significant material sacrifices. The increase in the price of these products means an ever greater burden on the importer countries--despite the fact that the contract prices are substantially lower than current world market prices--and makes difficult the realization of trade which has been balanced in value.

At the same time the CEMA countries are increasing their trade with developed capitalist and developing countries dynamically (especially strongly last year). Last year, for example, all foreign trade of CEMA countries increased 12.7 percent--with 7.7 percent increase of their trade with one another--which suggests the swift increase and expanding share of their trade in other relationships.

Contract discipline and the planned nature of our mutual deliveries have not improved, indeed in some areas they have deteriorated noticeably. In general the lag is made up in deliveries of a non-material character. The unplanned nature of deliveries, delays or failures, is causing bigger problems in some import materials of great importance (for example, wood and coke) because within a short time this causes production problems for the importers or they are forced to supplementary capitalist import.

In recent times the unsatisfactory level of shipping capacity has become an especially narrow bottleneck for the development of socialist economic cooperation. The narrowness of seaport capacity and the problems which can be experienced in rail transportation are ever more frequently obstructing the delivery of goods. Also reflected in these problems is the fact that in general the development of the infrastructure in the member states has not kept up with the growth of other economic branches and the expansion of international trade and the fact that even the relatively modest development was not adequately coordinated internationally.

In addition to these problems a number of other circumstances--there is an adequate supply of products, machines and equipment of medium development but there is a shortage of the most developed technical equipment, self-supply is not at a satisfactory level for some agricultural items, consumer goods trade and goods supply is relatively narrow, the transferable ruble

does not have a satisfactory role and credit resources are restricted--have also contributed to the fact that the development of the economic contacts of the CEMA countries has slowed down and lost its dynamism and that socialist economic integration is not developing at the rate imagined earlier.

The experiences of economic plan harmonization for the years 1981-1985--although not entirely completed--suggest that the possibilities for a swift expansion of economic contacts will be severely restricted in the years ahead also and that the growth rate of our contacts will moderate further. The mutual deliveries harmonized thus far give the following picture: in the next 5 years our export to CEMA countries will expand by 24-27 percent; our import can be expected to increase by 11-12 percent; so trade as a whole will be 17-18 percent greater in 1985 than in 1980. At the price of great efforts we will be able to ensure our basic needs for fuels but in the case of the import of a number of important materials we can count only on maintaining the import level achieved in 1980. Machine trade will develop more quickly than the average and the role of the export of agricultural and foodstuffs industry products and industrial consumer goods in counterbalancing primary material deliveries will increase.

The CEMA countries are making great efforts to increase the level of their economic contacts harmonized thus far and to expand their sphere. These efforts may bring certain new possibilities to the surface in the annual plans but they probably will not modify to any great degree the magnitude of growth in economic contacts which can be foreseen now.

II.

The problems appearing in the economic cooperation of the CEMA countries and the slowdown in the growth of economic contacts among them can be attributed to several closely interdependent causes.

The economic development shift from development reflecting extensive, primarily quantitative growth to intensive development which feeds growth largely by means of qualitative factors took place almost simultaneously in the European CEMA countries. The primary factors feeding economic development earlier (for example, bringing in new manpower) are being exhausted or have been exhausted already. In the interest of ensuring the continuity of economic development increasing the technical level, improving quality, efficiency and economicalness, the modernization of production and the transformation of the economic structure, which is closely interdependent with all this, became tasks of first priority.

The internal conditions for the necessary production transformation and increasing the technical level exist only partly in the individual countries. The switch to the new developmental course is a complex process and the individual countries can provide the financial and technical conditions for this from their own resources only over the long run. So the member countries are trying to supplement their own relatively narrow resources by bringing

in external sources. But the approximately identical situation of the several socialist countries, their limited material possibilities, does not make it possible for them to offer economic aid of the necessary magnitude; in practice this can be solved only by bringing in sources outside of CEMA. But these can be used only under very strict conditions and with limits.

Energy and raw material supply problems have sharpened in CEMA also--as they have in other areas of the world. After the adoption of the Complex Program efforts were stepped up to expand the raw material producing capacities of countries with favorable natural endowments by joining forces but the burdens of this--taking into consideration the constant price increases also--are so great that the limited financial possibilities of the importer countries are slowly being exhausted. In addition the countries with less favorable natural endowments are being forced to exploit their natural resources--often only by attaining the limits of economical production--which to a large extent ties down their investment resources and limits the money which could be turned to modernizing the processing industry.

The internal technical conditions for the switch to the intensive path of economic development are available only in part also. In the period of extensive development products serving the realization of technologies which saved on material and energy and involved the most developed techniques came into being only in a few areas (and not generally, and not with the necessary production magnitudes). There is thus a palpable and significant shortage of these. This is why the CEMA countries are being forced to acquire from the developed capitalist countries a relatively large proportion of their requirements of this type. This increases trade with these countries and in more than one case the rate of growth of this exceeds the magnitude of the increase in the trade of the CEMA countries with one another.

At the present level of development and with the given structure of production most of the European CEMA countries were not capable of conducting balanced trade with the developed capitalist countries. Fairly large capitalist debts piled up in the member countries--with the exception of the Soviet Union. On the one hand the payment and interest burdens of the credits already accepted eat up a significant portion of the increment in the national income, which decreases the developmental possibilities of the several countries, while on the other hand the most valuable goods are drawn away from the trade of the socialist countries with one another thus increasing the shortage of these products. The unfavorable economic effect of all this is only increased by the fact that the recession has become permanent in the capitalist world economy, that the insecurity of the international financial system has strengthened the competition for markets in general also and that the capitalist countries have expanded their disadvantageous discrimination against the exports of the socialist countries. Taken all together this makes difficult the efforts of the CEMA countries to increase capitalist export and get out of debt.

A solution to the problems of cooperation among CEMA countries is being held back by the fact that a system of economic tools which would effectively aid the development of socialist economic integration has not come into being. During years past we have not succeeded in creating and operating a system which would make the member states interested in going beyond the limits of bilateral accounting in their contacts with one another, make them interested in an exchange of products making use of multilateral accounting, which would result in a swift expansion of trade, or make them interested in selling their best products to one another. We have not yet succeeded in developing an effective interest and incentive system which would really aid swift technical development and an increase in the trade among one another of inventions and new technical solutions. There is no multilateral credit system using transferable rubles appropriate to the requirements.

Significant differences can be found in the internal economic guidance systems of the several countries in regard to regulating and encouraging foreign economic contacts. In a large proportion of the countries there is not a sufficiently close relationship between the internal producers prices and the foreign trade prices. There is not sufficient progress in bringing together the price systems of the several countries or in developing more realistic rates of exchange between the transferable ruble and national exchanges. The insufficiently effective system of economic tools on the national scale and within CEMA frameworks and the insufficiently intensive incentive system are often the reason why rational cooperation solutions which would well serve common interests do not come into being.

The strengthening of the economic problems in the CEMA member states has elicited relatively uniform economic policy reactions. In most countries the rate of economic growth has decreased, the increase in internal use (as compared to the increase in production) has moderated, they have stepped up efforts to develop production, for an advantageous transformation of production structure, for a substantial increase in the level of management and for the development of thrift. These efforts are promising. Already they have brought no few economic results. But they have not yet gone so far as to be integrated into a common, harmonized economic action program which would express long range mutual interests.

III.

The CEMA countries have now come to a very complicated transforming phase of economic development. The switch to intensive development is a difficult and complex process which will not last a short time and it is being made even more complicated by the fact that this transformation took place at essentially the same time in each of the European CEMA countries.

But it would be a mistake to see only the difficulties in this process. Progress is not easy but all the conditions for the development of a socialist economic integration based on mutual interests and mutual aid

exist or can be created in the economic community of the socialist countries. The chief task of the present period is for us to find those ways and means, in practice and by joint effort, by the use of which the development of the socialist countries will accelerate and the great advantages residing in economic integration will develop even more. The economic conferences of the socialist countries--such as most recently the 34th session of CEMA held in Prague--all seek the most effective solutions, more practically and concentrating on common, long range interests. Hungary also is actively participating in this work because our economic development is tied by a thousand threads to the development of CEMA and to a crucial degree depends on the development of socialist economic integration.

In the present stage of the economic cooperation of the socialist countries the economic policy consultations taking place within the frameworks of CEMA are of very great significance. In essence these consultations are forums for the expression of the economic policy strategy of the member states and they are suitable for becoming forums for the implementation and coordination of these conceptions.

The so-called long range special purpose programs worked out with the participation of the member states offer a significant possibility which can be exploited ever better for the development of socialist economic integration. Actually these are developmental ideas, coordinated with the interests of the member states, for energetics, primary material manufacture, the machine industry, agriculture and the production of consumer articles. The realization of these special purpose programs is built into the plans of the national economies--in accordance with the interests of the several countries. The task for the present and for the near future is to see that those of these programs which will most quickly and most effectively serve the goals of the individual countries and the common interests of our economic community should enter the realization phase as soon as possible.

Among the special purpose programs there are several special purpose groups the realization of which corresponds to these requirements. These include the development of energy thrifty technologies and cooperation in the production of the equipment needed for them. We must regard as a requirement of equal rank with an expansion of energy production resources a substantial increase in the efficiency of use, a moderation of specific fuel and energy use. Supplying the processing industry with quality materials and semi-finished goods is a program ensuring significant progress also. The significant sacrifices being made in the interest of extraction and primary processing of raw materials will be effective if more and better quality materials and preliminary products can be made available to the processing industry. In this way the efficiency of both the extracting and the processing industries can be improved significantly. The product specialization and cooperation of the processing industry are developing ever better in those areas which are of primary common interest. Of these, special emphasis is being given to the realization of cooperation in machine industry parts and sub-assemblies and to the development of cooperation in the development

of the electronics branch. This is important not only because virtually all socialist countries have a large capitalist import in these products but rather, primarily, because without coordinated development one can no longer imagine significant and continual technical development in this area.

Working out the special purpose programs was an important step in the development of economic integration and in defining goals. But this is only a framework for the development of cooperation. It will promise success if those programs aiding a solution of the biggest common problems are realized as soon as possible. This practical view, concentrating on the most important areas, can be observed more and more in the development of the cooperation of the CEMA countries.

There is an increasing recognition that real economic integration cannot develop without effectively operating economic tools and material interest. Thus, for example, the necessity of developing contract prices and a foreign exchange and financial system is appearing ever more urgently and from many sides.

The efforts and recognitions which have been mentioned--far from complete here--and decisions being made on the basis of them in a widening circle show that the conditions necessary for a fuller development of socialist economic integration exist or can be created in practice. Our economic community represents a powerful material force and potentially it has within it great developmental possibilities. Exploiting these possibilities more and more so efficiently aid our own and our common development depends on the work of the member countries and on their recognition of their real interests.

8984

CSO: 2500

FINANCING IN THE PLANNED MANAGEMENT SYSTEM DISCUSSED

Prague HOSPODARSKE NOVINY in Czech 23 May 80 p 4

[Article by Dr Eng Vladimír Kyzlink, CSc, College of Economics, Prague:
"Financing in the System of Planned Management"]

[Text] A key issue in improving the system of planned management is the proper coordination of the physical and the value aspects of the process of expanding socialist reproduction. Shortcomings in working out this relationship were some of the reasons for the low level of effectiveness of previous systems of planned management.

An important question is the extent to which commodity-money relations are utilized. The Set of Measures for Improving the Planned Management of the National Economy after 1980 assumes that the major link in the management of the economic sphere is to be the VHI, that profit or a modified form of profit will become merely one of the indicators affecting personal and collective material incentives, and that the role of material balances, indicators expressed in natural units and technical-economic norms and normatives will be expanded in the process of drawing up, carrying out and evaluating the results of VHI and economic organization plans. In analyzing the decree on improving planning in the USSR, Prof Dr Zdeněk Haba, CSc, concluded* on the basis of the same phenomena that the importance of commodity-money relations is to decline in the USSR.

The facts presented do not support such a conclusion, however, because:

--even if the VHI becomes the main management link it does not necessarily mean that enterprise khozraschet is to change into intraenterprise khozraschet. This is to mean only a more perfect division of labor between the two management links. Khozraschet must be retained at the enterprise level; it should not be absorbed into VHI operations. Consequently, monetary relations between the enterprises and the VHI cannot play merely a record-keeping role;

*Consolidating Centrally Planned Management, HOSPODARSKE NOVINY, No 47/1979

--the material incentive system was never, in any system of planned management in the CSSR, based only on the results obtained in fulfilling the profit or other financial indicators. Nor will it be now. From this, however, one cannot draw any conclusions about a change in how commodity-money relations are used;

--arguments about increasing the importance of material balances and similar economic instruments are not applicable to the role of commodity-money relations, since they are aimed at improving the management and planning of the physical aspect of the reproduction process. It has not yet been demonstrated that improving the methods of managing and planning the physical aspect of the reproduction process through the use of non-monetary methods would restrict the economic area in which commodity-money relations operate.

Three Conditions for Positive Operation

Utilizing commodity-money relations effectively in resolving the problems involved in the process of socialist reproduction hinges on whether the system of planned management creates the conditions for finance to operate as the most important element of commodity-money relations.

Previous experiences in improving systems of planned management in the CSSR have shown that finance operates in accord with the interests of society, that is, positively, only when the following conditions exist:

--organizations must be oriented by the plan primarily at fulfilling quality indicators;

--organizations must be precluded from shifting the consequences of the operation of their financial instruments outside their own organization, for example, onto the customer through prices, onto the state budget through levies; they must also be precluded from avoiding the effects of the operation of financial instruments, or from being exempted from the consequences of their operation even as an exception;

--organizations must be provided with an interest in achieving the best possible economic results.

From the principles published it can be concluded that the Set of Measures, in contrast to earlier modifications made in the system of planned management, will make it possible to fulfill the above conditions. This will depend on the thoroughness with which the details are worked out, in particular and especially on the way they are enforced and adhered to, since even the best principles can have little effect if they are not consistently applied.

An important principle that affects the operation of finance is the requirement in the Set of Measures that "at all levels of management the calculated values for the efficiency indicators are to be consistently applied as a decisive criterion of plan formulation; these efficiency indicators are principally the ratio between the fco (all charges prepaid) and the wholesale price,

profitability, standard material consumption, capital asset utilization, labor productivity, etc., even with the setting of targets for approaching the level of other technologically and economically developed nations."*

This principle represents an attempt to enforce the concept of efficiency at the moment of deciding on the implementation of specific objectives. This is the time when it is possible to have the greatest influence on efficiency.

The Criterion of Efficiency

All of the indicators listed in the Set of Measures as examples of instruments for enforcing efficiency are partial indicators that will predetermine what the resulting efficiency concept of the continuing solution in the further development of the nation's economy will be. This gives rise to the opinion that the Set of Measures does not contain any indicators that would predict the overall effectiveness of a state plan for development of the nation's economy.

As is well known, theory has not yet found a means of efficiently measuring the overall effectiveness of the nation's economy. It is a complicated problem because it is a complicated process that is to be measured.

It is questionable whether a criterion for the effectiveness of the economy is to be sought in any kind of complex indicator. A solution must be sought in the relation between physical and financial plans, in the predictive ability of financial plans. The criterion of how physical plans fulfill their effectiveness targets must be the actuality of whether the decisions adopted on the further growth of the economy make it possible to create the financial resources necessary to fulfill all of the intentions of economic policy in the area of increased social consumption and a higher standard of living.

If we recognize that the basic objective of production under socialism is to satisfy the ever growing needs of the people, then the concept of the development of the economy must be such as to fulfill these tasks. The results of economic management are not to be measured only by the growth rate of production but also by the situation with respect to satisfying the needs (quantitative and qualitative) of the people.

If the object of production is to satisfy the needs of the people, then not just any level of effectiveness can be used in plans. The physical plan must work out all tasks in such a way as to achieve that level of effectiveness that will make it possible to fulfill the intentions of economic policy in the areas of social and personal consumption.

But this requires that means exist for the plans, financial and physical, to affect each other both in the process of composition and in the process of being implemented.

*Supplement to HOSPODARSKE NOVINY No 11/1980 p 8.

In determining the effectiveness that must be used in the state plan what must be taken as a basis are the financial plans that can determine what financial resources are necessary to fulfill the planned tasks. Accordingly, the physical plan must establish this initial effectiveness in close conjunction with financial plans, in particular the state budget and the currency plan.

This effectiveness that has been decided upon must be figured into all the indicators to be used as a basis for composing the plans of the individual economic management organizations.

In the process of composing the plans it will then be necessary for the financial plans to check up constantly on how the planned intention in effectiveness is being met. For this it will be necessary to work out a system of budget, credit and currency criteria to carry out this role in the course of routine operations. When the intended effectiveness cannot be adhered to in the process of composing the plan, these criteria would have time to give advance warning of this and make it possible to calculate what effect this will have on fulfilling the intentions in the area of consumption.

The Relation Between Physical and Financial Plans

In recent years financial theory has developed several financial criteria that can be used at the macroeconomic level to evaluate the effectiveness of a physical plan. One of these is the indicator for the rate of return on financial resources, which measures the relation between the size of the resources created by the industrial sphere and the size of the financial resources necessary to finance its further development. This indicator in itself is not the final word, but it shows how it is possible to check on the effectiveness of a physical plan in the area of the state budget. Similar indicators have also been developed in the areas of credit and monetary circulation.

By integrating budgetary, credit and currency criteria it becomes possible to eliminate some of the negative aspects of the comprehensiveness of financial indicators. For example, if resource creation tests prerequisites for meeting targets in satisfying overall consumption increases, then the view from the standpoint of currency stability can test them from the standpoint of structure, etc.

Cases can arise where it will not be possible to completely reconcile the requirements of the physical decision and those of the financial indicators. In such a case the relationship between the financial plans and the physical plans would reveal this lack of consistency, however, and the bodies involved would be able to make a decision on a solution with the understanding that in the given case the requirement for the planned effectiveness is not being adhered to. The consequences of so doing must also be dealt with.

An objection might be raised to this concept of the role of finance in the process of drawing up plans, the objection that this concept does not respect the priority of the physical plan. This concept assumes the dialectical unity of the two plans, just as a unity of material and value aspects exists in the process of reproduction.

The law of the planned proportionality of development requires that a socialist economy develop in a planned fashion. This law does not unconditionally require that the physical plan have priority, but that development be planned. Financial plans are also a part of the national economic plan and must have an influence on this planned development. Aside from this, the physical plan is a subjective expression of planned development. If it is to express objective processes as well as possible it needs the tools to check on the selected method of resolving further development.

Incentive and Control Functions

The Set of Measures posits the intensive use of all the functions of finance. Its incentive function is to encourage organizations to draw up their plans in such a way that they at least meet the required effectiveness figure and, to the extent possible, exceed it. In the process of carrying out the plans, finance must encourage fulfilling and exceeding the targets adopted, and in particular fulfilling them with maximum economy.

The control function of finance should also be increased, however. Until now this function was understood in its warning capacity. The fact was emphasized that the evolution in financial relations expresses the evolution of material processes that can be used to control their courses. A typical example is controlling by means of the koruna. This control has a certain significance, but it should not be overestimated.

This view of the control function of finance was not widely understood. Many theoreticians considered the control function of finance to be a tradition retained out of force of habit. Attention was focused rather on its incentive functions.

The Set of Measures creates the conditions that make it possible to utilize finance for real control over the process of reproduction.

Financial relations operate as controls in cases where the extent of financing depends on the size of the financial resources created. The creation of financial resources thus becomes an instrument that determines the extent of financing and thereby at the same time exerts control so that consumption does not exceed the financial possibilities of the society. Society is thus protected against excessive demands, and consumption evolves in harmony with the resources created, and at the same time has an effect on economizing and on increasing interest in creating financial resources.

The effectiveness of this way of using finance can be increased by using suitably selected conditions on whose fulfillment depends the right of drawing upon resources created.

In order for it to be possible to take advantage of the control function of finance, the quality of financial planning must of course be improved. The size of the requirement can be effectively tied to the amount of the financial resources created, only if the development of the financial resources is

known in detail and the factors affecting their creation are, as are the evolution of consumption and the factors affecting it. If one of these elements is not determined correctly, the controlling effect of finance is weakened to the point where it may become completely ineffective. This holds for all organizations, not only khozrazchet organizations.

In order to take advantage of the control function of finance in the area discussed above, it is not necessary for financial resources to be of the same size or larger than the expenditures which depend on their evolution. They can also be smaller. In this case, however, a necessary condition for taking advantage of the control function of finance is the existence of a quantifiable relationship between the evolution of selected financial resources and the expenditures decided upon. This quantification must not assume the existence of a proportional relationship.

In recent years financial policies have attempted to use such relationships in various areas, but their application was not based on a well-grounded knowledge of the necessary relationships. These relationships will thus have to be understood more profoundly and then we will be able to create the conditions for finance to be utilized even better.

Just these few remarks on the Set of Measures for Improving the System of Planned Management after 1980 are enough to show that theory and practice are faced with a number of important tasks. The further rapid development of the economy depends on our solving these thoroughly.

8805

CSO: 2400

LONG-TERM TRENDS IN IMPROVING MANAGEMENT QUALITY DISCUSSED

Prague HOSPODARSKE NOVINY in Czech 4 Jul 80 pp 8-9

[Article by Eng Vaclav Vertelar, deputy chairman of the State Planning Commission]

[Excerpts] The decree of the CPCZ Central Committee Presidium and the CSSR Government entitled "A Set of Measures to Improve the System of Planned Management" emphasizes the crucial importance of and need for further improving the quality of planning at all levels by enhancing its scientific nature, its long-range aspect, its comprehensiveness and its coordination. In conjunction with this it is necessary to intensify work on the long-term outlook and to increase the role of five-year plans as the major instrument for carrying out the economic and social policies of the party. The decree focuses especially on the substantive content of prospective plans, which must be brought up to a qualitatively new level, thus insuring a real reorientation toward economic efficiency, which indisputably begins with planning. The most important purpose of the annual plans is to breakdown and provide for carrying out the tasks and objectives of the five-year plan.

The demand for improving the quality of planning is entirely justified at this particular time when we must resolve very complex and challenging tasks in further developing our economy. It is based on the Leninist principles concerning the management of a socialist national economy which have not only a profound economic content, but a definite political orientation.

In the resolution issued by the CPSU Central Committee on the occasion of the 50th anniversary of the First Soviet Five-Year plan it states: "The planned development of the national economy is one of the most important scientific and social achievements of the 20th century and of the revolutionary practice of restructuring social life. V.I.Lenin considered planning to be the core of national economic management. He emphasized that it is impossible to work without plans worked out for long periods of time and based on real successes, he pointed out the need for a long-term, unified economic plan drawn up for an entire country....The great historical significance of the First Five-Year plan also consists in the fact that it laid the groundwork for using five-year plans as the major form of economic planning it turned it into the great organizational and mobilizing force for communist

construction, it proved in practice the superiority of socialist economic methods over capitalist....The task facing us now is to raise all our planning work, the very content of planning, to a qualitatively new level, to think through more profoundly the economic problems life presents us with and, by taking full responsibility and exercising initiative in a creative way, to seek out the best ways to resolve them. Our plans have become the most important tool used in carrying out the economic policies of the Communist Party. They are fulfilled in the interest of consolidating and developing the socialist system, of expanding the forces of production, improving social relations, and systematically raising the material and cultural living standards of the people."

These theses are of fundamental importance and general applicability. The content, aim and goal of socialist planning is first and foremost to insure economic growth that will guarantee the continued progress in building a developed socialist society in our country and an increase in the unity and strength of the entire socialist community.

The Set of Measures is based on the many years of experience in national economic planning accumulated in our country and in the other socialist countries and focuses on the most important directions in bettering planning activity at all levels of management. Such are considered to be strengthening the long-range nature of planning in using goal-oriented program planning aimed at achieving good national economic results; improving methods of plan formulation and detailing; and improving the effectiveness of controlling and evaluating its execution. Attention is concentrated on the planned development and consistent application of the results of science and technology in the nation's economy, on the reproduction of fixed assets and their better utilization, on the allocation and utilization of the labor force, and on foreign economic relations.

Strengthening the Prospectiveness of Planning and the Goal-Oriented Program Approach

In this area the Set of Measures contains tasks that are to a significant extent carried out on the basis of the CSSR Government Decree of March 1979 on the further progress in preparing the Seventh Five-Year Plan and the outlook for the development of the national economy of the CSSR through the year 2000. This established a concrete time and content schedule, the methods and content of individual tasks for preparing the Seventh Five-Year Plan and the outline of progress of work on the long-term outlook.

The preparation of the CSSR Government resolution was preceded by a detailed analysis of the status of the work being done over the long term for the development of the national economy through 1990. This work was begun by the central planning bodies and ministries halfway through the five-year plan period. The work was divided into a series of stages, starting with the macroeconomic concepts for its formulation and the creation and utilization of resources, and ending with the concrete intersectoral and branch programs. In 1975 the results of this work were used in preparing the guidelines for the Sixth Five-Year Plan.

On the basis of the resolution passed by the 15th CPCZ Congress, the CSSR Government established further directions for work in 1976. These were based on the conclusions expressed in the resolution, namely that "with the Sixth Five-Year Plan we are entering a new stage where our economy will develop under more difficult economic conditions, both domestic and foreign. The extensive sources of growth have been practically exhausted, and the harder tasks facing us will have to be carried out using essentially the same number of workers, if not fewer, and with slower growth in energy and raw material supplies. The growth of social production necessary for any further rise in the material and cultural standards of the people will place ever-increasing demands on the use of intensive growth factors, the efficient functioning of the entire economy, the proportional development of the productive and the nonproductive sectors of the economy, and the safeguarding of our living environment.

These domestic challenges are being further increased by the important changes that have occurred in recent years in the world economy. These are not short-term effects, but changes in long-term conditions which we must take into consideration as the objective reality in our plans."

The work on the concept for the development of the economy after 1980 was based on the assumption that the tasks set by the Sixth Five-Year Plan would be fulfilled and that external conditions of economic development would not deteriorate any further than envisaged during the preparatory work on the Sixth Five-Year Plan. As shown by the results achieved in carrying out the plan, these assumptions were not fulfilled. Nor did the approach taken by all levels of management in preparing the bases for drawing up the long-term outlook for the development of the economy through 1990 change to the extent necessary. Proof of this are the department proposals drawn up in 1977 which differ significantly from the orientation targets set by the CSSR Government, especially with respect to overall efficiency.

The investments requested in these proposals were roughly 20 percent higher than the provisionally established figure. Total investments would have to rise, on an annual average, by more than 6 percent over the level planned in the Sixth Five-Year Plan, which on the basis of the results to this point will not be achieved. The reasons for these significant differences in the views on the extent of investing must be sought primarily in the fact that a number of central agencies in their work on preparing the bases for the Seventh Five-Year Plan and the long-term outlook were guided primarily by the demand for investments and the beginning of new projects without sufficiently justifying these economically and technically, without analyzing the potential for insuring the increase in production by the more intensive utilization and modernization of existing facilities, and without taking into consideration the capability of the economy to bear such expenses at the present time.

Department requests for more workers were several times higher than the available resources. According to the proposals, imports were to exceed exports to the desired degree only in trade with the socialist countries. In trade with nonsocialist countries, however, the balance of trade showed a tendency to increase in the negative figures after 1980.

In their aggregate the department proposals were unacceptable. The CSSR Government therefore stated in discussing the status of work on the long-term outlook (in March 1979) that the work done to that point on preparing the Seventh Five-Year Plan and the long-term outlook through 1990 did not show a sufficient degree of concern for the critical proportions of further economic development.

The policy line of the CPCZ 15th Congress, given concrete form especially at the 11th and 12th sessions of the CPCZ Central Committee, and aimed at the efficiency and quality of every kind of work and of long-term validity, was not insured to the necessary degree. At all levels of management an approach persists which is characterized by the fact that the concepts of development still continued to exhibit significantly extensive elements. The objective necessity of overcoming the consequences of the changed domestic and foreign conditions of development was not taken sufficiently into consideration. Focusing their work primarily on quantitative demands deflected their attention from the demands of dealing with qualitative tasks, from the substantially better utilization of asset and workforce potentials and from the rapid adoption of the results of scientific and technological development. For these reasons a new approach was established, a new program of work and new scientific goals were set both for preparing the long-term outlook through the year 2000 and for preparing the Seventh Five-Year Plan.

Work on the Long-Term Outlook Through the Year 2000

Work on the long-term outlook for the development of the CSSR economy, which has already begun, is to prepare the bases for marking out the long-term orientation of economic policies of the party and its economic strategy providing for a rise in the material and cultural level of the people. Work is to be focused primarily on the following:

1. Providing for the intensification of all phases of the reproduction process and, by substantially increasing the efficiency of development and the quality of every kind of work, insuring the complete adaptation of the CSSR economy to the new domestic and foreign conditions at the stage of uniting the results of the revolution in science and technology with the advantages of socialist society. The permanent dynamic development of the economy is to be provided for by the broad application of the results of scientific and technological progress, the maximum participation of the CSSR economy in the international division of labor through socialist economic integration, and the highly effective motivation of creative activity on the part of the workers.
2. Providing for the projected development of the economy, while substantially curtailing increases in fuel and power resources and of the most important raw and processed materials to roughly a quarter to a third of past increases.
3. In manufacturing, especially in engineering, priority should be granted to products which we can realistically keep at the level of worldwide progressive evolution using the strengths of our own research and development base, increased by scientific and technological collaboration with the CEMA countries and consistent with the policy on licenses.

4. Substantially increase the participation of CSSR industry in the international division of labor in a way that answers the needs and the potentialities of our society, so as to achieve a level comparable with that of other industrially developed nations. The basis for such development is to be the broad developing of participation in socialist integration. For this purpose, mutual scientific and technological cooperation with the Soviet Union is to rise to a qualitatively new level and the integration of the economies of the two countries is to be intensified.

5. On the basis of the rational utilization of the work force and the qualifications of the workers, provide for the needs of the development of the national economy. In industry and construction, insure that labor productivity grows more rapidly than production and output. The productivity of labor should be raised by the year 2000 to a level at least double that expected for 1980.

6. Insure a turnaround in capital investment and its orientation in accordance with structural changes toward the renovation and modernization of existing fixed assets in order to achieve their optimal utilization and harmony between the reproduction of fixed assets and the real resources of manpower, fuels, power and raw materials.

7. In accordance with projected goals and realistic possibilities, provide for the further development of the socialist way of life, including the improvement of the living environment and its protection against the negative aspects of the development of the forces of production.

8. Insure the distribution of the forces of production on the basis of the rational maximum utilization of the economic potential of both national republics in such a way as to accomplish the most urgent development tasks of the CSSR.

The program ratified by the CSSR Government calls for expanding planning work to cover the time up until the year 2000, using forecasts, long-term comprehensive programs and other, previously used methods of long-term planning.

In contrast to previous procedures it is not intended to begin work by establishing the major quantitative frameworks from which limits on investments, manpower, material inputs, etc, would be derived.

Due to the extraordinary changes that have occurred in foreign and in certain domestic conditions, a procedure was established that will make it possible, during the first stage, for the critical initial prerequisites for further development and the ways of achieving the necessary qualitative changes to be verified and for the data to be gathered that is needed to select the most effective conceptual solutions.

During the first stage, which is to last roughly through the end of 1980, it has been directed to work up forecasts of the major directions which scientific and technological development will take that can be applied in practice by

by the year 2000. This is to be done primarily for the most important branches of production (fuels and power, the chemical industry, metallurgy and engineering, agriculture, etc.), and in conjunction with this a number of bases and forecasts of a socioeconomic nature are to be composed for verifying selected foreign and domestic prerequisites of economic development (forecasts of the evolution of society and of the socialist way of life, of conditions in this country for the development of the economy, demographic changes, usable domestic sources of raw materials, etc.). The first stage of work is oriented primarily at insuring that scientific and technological progress be made the basis and the starting point for the formulation of the concept for the long-term development of the economy.

During the second stage of work, that is between 1980 and 1983, it is intended to select and draw up long-term comprehensive programs, to work out the long-range development concepts of the major sectors of the national economy and additional bases making it possible to establish the basic structural changes in the economy, the most urgent innovations in production, the tasks in the development of science and technology, and plans for distributing the forces of production for the development of the most important areas.

During the third stage of work, 1983 to 1985, the overall drawing up of the proposed long-term outlook with a time-limit extended to 1995-2000 is to be completed, and on its basis there is to be prepared a draft of the Eighth Five-Year Plan for the years 1986-1990, and bilateral and multilateral coordination of plans with the CEMA countries is to be carried out.

The work on the long-term outlook for the development of the national economy is very complex and the newly established procedure and approach to fulfilling the individual tasks make great demands on the work of the scientific research base and the planning bodies at all levels. It will be necessary to evaluate the individual stages of work very carefully, to work out the details of its further progress and gradually to create at all levels of management the required organizational and personnel prerequisites for the ever more intensive development of all basic, conceptual national-economic work.

Work Program During the Seventh Five-Year Plan

At the present time work on preparing the Seventh Five-Year Plan is already well advanced. By the time it was begun the major substantive directions for preparing the bases for working out the concept of the development of the economy of the CSSR after 1980 had already been established:

--The long-term validity of the basic goals of the most important directions of economic and social development outlined by the 15th CPCZ Congress and further developed by the 11th Session of the CPCZ Central Committee is to be taken as the starting point. The further development of the economy and the use of resources is to be based even more completely on increasing the efficiency and quality of every kind of work; improving utilization of the results of

scientific and technological development; overcoming as rapidly as possible the consequences of the new, difficult domestic and foreign conditions for the development of the CSSR economy; increasing intensification of international socialist integration, and strengthening collaboration with the CEMA member states, in particular with the USSR.

--Verifying the real possibilities for the development of production on the basis of the envisaged sources of fuels, power and basic raw materials while raising their use efficiency and improving the quality and level of technological sophistication of products.

--Determine the bearable level of investment, significantly increase the share of investments made in the modernization and renovation of existing fixed assets in production with the goal of increasing their utilization and the productivity of labor to the maximum and raising output within a short time to meet foreign and domestic needs. Verify the previous ideas about the development of the individual branches of the productive and nonproductive spheres and strictly judge the effectiveness and urgency of the new proposed investment programs and projects. In accordance with this, propose the necessary allocation of investments, and in so doing providing on a priority basis for critical export production.

--Provide for the more rapid growth of the social productivity of labor through the more consistent utilization of the intensive factors of growth.

--In rising the living standard, place special emphasis on consolidating the level already achieved in personal consumption, improving its structure and its gradual development in accordance with economic possibilities.

--With a view to solving the increasingly difficult developmental problems of the CSSR economy, more efficiently utilize the economic potential and the specific conditions of both republics. Insure on a priority basis that complete advantage is taken of the existing production-technological base, that it is gradually modernized and that the fuel base is further developed. To this end also provide for the necessary manpower and insure the interlinking of the reproduction of fixed assets with the regional distribution of the labor force.

Time and substantive programs of work on preparing the bases for developing the Seventh Five-Year Plan for the Development of the National Economy of the CSSR from 1981 to 1985 have been established to flesh out these directions. On the basis of these programs the work is being carried out.

In 1979 the preparatory stage of working out the necessary bases for the Seventh Five-Year Plan was completed and the directives of the CSSR Government on preparing the proposal for the Seventh Five-Year Plan for 1981-1985 were drafted. These directive were ratified in April 1980. In compliance with these directives, the department and other central agencies will work out by August proposals for general bases for the Seventh Five-Year Plan, and on the basis of these the State Planning Commission will draw up a draft Seventh Five-Year Plan.

In 1981 the Seventh Five-Year Plan will be completed, and according to the guidelines of the 16th CPCZ Congress, it will be presented for ratification to the CSSR Government and the Federal Assembly.

To provide for better and more thorough development of goal-oriented program approaches in preparing the Seventh Five-Year Plan, a decision was made on the procedure for working out state goal-oriented programs for this five-year plan.

The purpose of the state goal-oriented programs is to prepare and carry out important qualitative changes in the course of the Seventh and Eighth Five-Year Plans aimed primarily at achieving a marked improvement in the technological level of production processes and of the use values of products, improving the export capability of the national economy and decreasing the need for imports, rationally economizing of fuels, power, raw and processed materials, and at increasing the productivity of labor. This type of program is to unify all the crucial criteria (economic, technological, international, social regional, etc.) in such a way as to achieve the greatest possible social result in the shortest possible time through the interdepartmental and interdisciplinary coordinated efforts of all the participating agencies and organizations.

The Proportionality of the Seventh Five-Year Plan at All Levels of Management

Work on preparing the Seventh Five-Year Plan is organized as a system of verifying and gradually detailing and giving concrete form to the draft plan between the various levels of management, insuring the proportionality of the planned tasks and making the links between the sectoral and the spatial aspects of the plans more precise. For this reason even the directives of the CSSR Government for working out the proposals for the five-year plans for departments, VKJ's and regional national committees cannot be considered as finalized and unalterable for all the individual tasks. Naturally this does not mean that it would be possible to request additional inputs over and above the overall limits on investments, manpower, imports, etc. Just the opposite. At this stage of work it is necessary to achieve better results, a higher degree of efficiency of the further development of the economy by carefully working out the tasks for the lower levels of management.

In discussing the directives it was emphasized that with regard to the difficulty of domestic and in particular foreign conditions, which continue to worsen, some problems have not been satisfactorily resolved. The decisive way to their resolution is by adopting the strategy of intensifying and increasing the efficiency of the national economy on the basis of increasing the productivity of labor, economizing, achieving a higher use efficiency of all material resources, and utilizing reserves on the basis of accelerating scientific and technological progress in production, and intensifying cooperation with the CEMA countries, in particular the Soviet Union.

In order to ensure that this goal is achieved, scientific and technological development must become the basis for the formulation of the five-year plan proposals. Its tasks must be consistently reflected in the draft plans at

all levels of management and in all the necessary interrelations so that the intended increases in the efficiency and quality of production are provided for in concrete and realistic form. Every task must be verified by calculating its economic effectiveness and its utilization of production capacities, and by justifying it in terms of the pertinent norms oriented toward achieving progressive, "peak" parameters of production (both technical and economic). Only in this way can the five-year plan, subdivided into annual plans, become the basis for organizing economic activity at all levels of management for the entire five-year period, and define the necessary conditions, in particular the standards for material stimulation. These must then be realistic, but highly demanding plans, for which the decisive criterion will be the attainment of a high level of efficiency.

The methods for working out the draft of the Seventh Five-Year Plan and that of the 1981 implementation plan include measures for ensuring the linkages of the individual parts of the plans in the area of production and its use, both in the overall marketing categories and in the more detailed specialized subdivisions.

An important criterion in determining the quality of a plan must be the provisions for its internal linkages. This is the purpose of the measures aimed at creating a complete system of financial balances, primarily structural and marketing balances, and at intensifying the system of material balances at all levels of management. The operation of the system of balances and import marketing gesce is also being improved. A number of measures have as their goal the strengthening of supplier-customer relations in the process of formulating and realizing plans and the insuring of these relations in the form of contracts.

A highly responsible task at all levels of management is the consistent application of measures designed to increase the effectiveness of the system of supplier-customer relations. This system must become not only a more efficient means of achieving closer ties between the plan and the allocation of material resources, but also must be used as a means for recognizing future requirements and for actively insuring harmony between the evolution of resources and requirements.

The procedures followed in negotiating supplier-customer relations in the planning process, especially within the framework of preparing the medium-term plan, are to be elaborated. The effectiveness of these procedures must be insured by the resolution of disagreements at the different levels of management in such a way that it gradually becomes possible to abide by the principle that the crucial supplier-customer relations must be concluded at as early a stage as the conclusion and detailing of the plan.

Elaborating and finalizing the internal linkages among the parts of the plan is dependent to a crucial degree on the quality of the system of technically substantiated norms. Accordingly, the Set of Measures calls for working out the details of long-term programs for the formulation and systematic updating of all norms of this type.

The Important Role of Annual Plans

The basic function of the annual plans is to provide for the execution of the tasks and objectives of the five-year plan. They must at the same time respond operationally to changing foreign and domestic conditions, and to new phenomena and needs that arise in the course of carrying out the five-year plan. Efforts to achieve greater stability in the five-year plans do not then mean absolute immutability for all of the partial plans.

The starting point for the formulation of annual plans will be the tasks, limits, means of material stimulation and other economic conditions established by the five-year plan. The relationship between the tasks and the means of material stimulation established by the five-year plan for the given year will be used with the objective of making it more advantageous to accept higher targets in the annual plan, especially with respect to quality, or to penalize the failure to achieve these targets. Stimulating counterplanning as a crucial form of the participation of the workers in management will also be based on these relationships.

The method used for controlling and evaluating plan fulfillment is also being changed. In addition to control and evaluation of the fulfillment of the individual plans there will also be control of the fulfillment of the five-year plan from the time it begins. The basic criterion will be the fulfillment of the tasks assigned, especially those with respect to increasing efficiency, quality and export effectiveness, and the realization of the results of scientific and technological development.

The Set of Measures rightly devotes considerable attention to counterplanning. It emphasizes: "The attention of the workers is to be focused primarily on surpassing the qualitative tasks of the five-year plan, while not exceeding the limits on the resources allocated for them. Raising qualitative targets is to be consistently subordinated to the needs and the potentials of the national economy. In the event that counterplans require greater amounts of raw materials, processed materials and products, the proposing organization and its superior body are to provide for meeting these needs together with the suppliers, within the framework of negotiating supplier-customer relations in the process of formulating the plan. At the same time, the supplier may not reduce deliveries to other customers."

At the same time the directives on working out the five-year plan were ratified, the guidelines for working out the plan for 1981 were also ratified. The proposals for the 1981 plan will be worked out at all levels of management as an organic component of the bases for composing the Seventh Five-Year Plan. It is a significant step that even with the composition of the proposals for the 1981 plan the system of incentive relations set forth in the Set of Measures in the relation between the five-year and the annual plans is being used. In the given instance the guidelines play the role of the five-year plan, and the relationships are the means of material stimulation. The qualitative tasks are established by the guidelines in such a way that proposing and accepting higher targets in the plan than in the guidelines is encouraged and failure to adhere to their targets is penalized. Specifically these are the relations between:

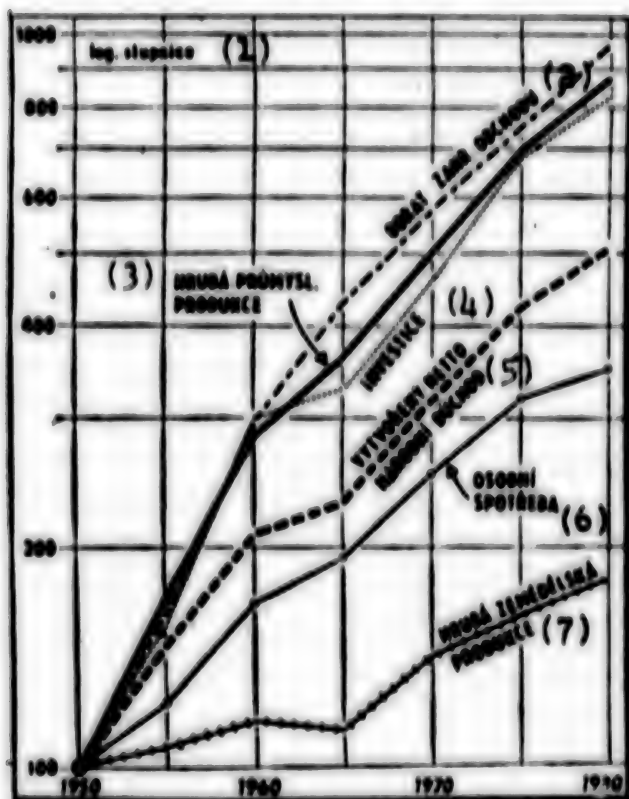
- adjusted value added and the basic component of wages payable;
- the return on production assets and the incentive component of wages;
- the volume of export in prices quoted "all charges prepaid" and the formation of the export incentive fund.

Within the next few months, before the end of the year, the quality of the proposals for the Seventh Five-Year Plan and for the 1981 plan will be determined. This is an immensely responsible and complex task. The concrete means conceived by the Set of Measures for stimulating the acceptance of challenging targets will not be operating in the formulation of bases for the Seventh Five-Year Plan. This after all was not envisaged by the Set of Measures. On the contrary, we are threatened by the danger that the enterprise sphere will attempt to retain their hidden reserves for formulating the annual plans so that their annual plans can surpass the five-year plan and they will thus be able to gain the corresponding advantages in incentive funds.

It is thus a matter of the proposals of the plans for the Seventh Five-Year Plan period and for 1981 being worked out to be maximally effective in all of their parts. The basis for the formulation is, at all levels of management, technological development, improvements in quality, the introduction of new products and technologies, the reduction of material-intensiveness, etc. There must be no recurrences of the situation that once was so common: when the plan proposals of enterprises, VNI's and departments were in their aggregate significantly worse than the directives ratified by the CSSR Government.

What is thus involved is a fundamental change in the approach of managerial personnel toward the formulation and realization of the plan. This is impossible without a high degree of professionalism and without great activity and commitment. Lenin's saying that socialism cannot be built only on the basis of enthusiasm, but must also be built on the basis of economic self-interest, is often quoted. This is indisputably correct. Both aspects must be strengthened, both material self-interest and a high degree of activity and commitment in fulfilling the tasks of the economic policy of the CPCZ.

**ROST NĚKTERÝCH HLAVNÍCH UKAZATELŮ ROZVOJE NÁ-
RODNÍHO HOSPODÁŘSTVÍ v letech 1950—1980.**



Graph: The Increase in Some of the Major Indicators of the Development of the National Economy between 1950 and 1980

Key:

1. Logarithmic scale
2. Foreign trade turnover
3. Gross Industrial Production
4. Investment
5. Net National Income Created
6. Personal Consumption
7. Gross Agricultural Production

8805

CSO: 2400

PREPARATIONS FOR SEVENTH FIVE-YEAR PLAN IN COAL, ENERGY VIEWED

Prague HORNÍK A ENERGETIK in Czech 17 Jul 80 pp 1, 8, 9

[Article by Josef Farka, deputy minister and members of the union's Central Committee: "Earnest Preparation for the Seventh Five-Year Plan"]

[Text] The supreme party and state bodies are presently orienting all of our society toward fulfillment of this year's plan and the entire five-year plan, so that even now we are creating favorable conditions for the much more demanding tasks of the Seventh Five-Year Plan. At its 12th plenary meeting, the Central Committee of our union [UVOS] recently adopted political and organizational measures to ensure maximum activity of all union bodies and members at this stage. The meeting was addressed by the deputy minister who spoke of the directives for the preparation of the Seventh Five-Year Plan draft proposal, and the application of the "Set of Measures for Improving the Planned Management System" in the sphere of fuels and energy. Due to its great importance, we are publishing substantial excerpts of his address.

This year, the Presidium of the Central Committee of the Communist Party of Czechoslovakia and the Federal Government adopted three important economic and political documents which will govern economic and social development of our society after 1980. These are:

- Directives for the 1981 plan,
- Directives for the preparation of the Seventh Five-Year Plan draft proposal and the
- "Set of Measures for Improving the Planned Management System of the National Economy after 1980."

The starting point in the preparation of national economic development lies in the anticipated results of the Sixth Five-Year Plan. Economic progress in this five-year plan was based on the assumption of achieving high effectiveness in all economic growth factors. High effectiveness and quality in all our endeavors and implementation of structurally desirable changes in production were to cancel out the consequences of more demanding external and internal conditions of our society's development.

We find, however, that none of these factors will be consistently met. Long construction deadlines and slow introduction of new assets into operations negatively influence the application of scientific and technological progress and the overall process of capital investment. The volume of import from capitalist countries was too high, while export targets were not met, which is reflected in a further worsening of the negative balance in external economic relations, especially with respect to capitalist countries.

A highly negative turn occurred in 1979. A very unfavorable role in it was played by energy problems at the beginning of the year, a drop in agricultural production due to a poor harvest, and deviation from the plan even in other branches of the national economy. All this reduced economic growth rate, and caused a drop in dynamism which we have so far been unable to halt even in the course of this year.

The starting platform for the 1981 plan and the Seventh Five-Year Plan is the fulfillment of planned tasks this year. Above all, this means uninterrupted supply of the national economy with fuels and energy, delivery of maximum amounts of coal for energy production, implementation of timely measures for the winter period, reduction to a minimum of shortages in reserves, substantive fulfillment of the capital investment plan and, last but not least, fulfillment of all tasks aimed at greater efficiency and economy.

The situation in supplying our national economy with fuels and energy during the winter of 1979-80, was dealt with by our party's Presidium which noted with satisfaction that the supply of the national economy and the population with fuels and energy during that period was, by and large, smooth. This was achieved primarily through the development and implementation of the party and government presidia resolutions on this problem of June of last year.

The CPCZ Presidium, however, emphasized that we must not succumb to self-satisfaction and ease up in our efforts to ensure the development of the fuel and energy base, and we must not reduce our efforts to lower the demand for energy in economic development. The Presidium noted that, with respect to the fuels and energy plans for the coming period and the passage into the Seventh Five-Year Plan, we must concentrate our effort to overcome the serious shortcomings enumerated further on, and resolutely confront all important tasks. Among the shortcomings, we must include the unsatisfactory development this year in coal extraction and further deterioration in the condition of mines in the North Bohemian brown coal region.

Together with flaws in management, this is caused mainly by inconsistent fulfillment of the adopted program for reconstruction of existing equipment and modernization of more recently delivered heavy machinery and long-distance belt transport. The Presidium also draws attention to ensuring planned supply to electric plants before winter comes of at least 3.4 to 3.8 million tons of brown coal, and 1.1 to 1.3 million tons of black coal.

In accordance with the conclusions of the Fourteenth Central Committee Plenum, we must achieve economy in the use of electricity by industrial users where inordinate growth in excess of planned consumption occurred this year. We must adopt energetic measures to balance electricity consumption by industrial users in the course of shifts and working hours, and raise operational effectiveness throughout the entire system of electricity production.

We must substantially improve the course of planned capital investment activity in the fuels and energy base, especially those which are to become effective this year and next, as well as improve the general repair process of equipment needed in energy operations.

The Party Presidium continues to consider overall development of the North Bohemian brown coal region an especially urgent political task. The Presidium also demands that all ministries and central organs, economic production units, and national committees proceed without delay with effective preparatory measures for next winter in the spirit of the position and conclusions reached by the Presidium in June of last year, which are still fully valid.

In addition, the Presidium emphasizes the urgent need to purposefully approach the vital problem of fuels and energy conservation, as was stressed in September of last year during the discussion of the long-term program of effectiveness and economy in consumption, conservation, and full utilization of all types of fuels and energy.

These conclusions of the Presidium of our party are binding for each and every one of us to do our very best, within the framework of our responsibility and jurisdiction, for plan fulfillment this year, and thus for a smooth passage into the Seventh Five-Year Plan. Government directives for our branch set forth the following principal indicators (perspectives of tasks and assets for 1985):

- brown coal extraction, 103.1 million tons;
- black coal extraction, 27.8 million tons;
- coke production, 2.4 million tons;
- electricity production, 75.8 million kWh;

--increment in the work force for the five-year plan, 24,000 people;

--number of housing units for the five-year plan, 24,000; and

--overall volume of capital investment, 102.2 billion korunas.

The growth in wages in the 1980 and 1985 index is 109-110.6 percent.

What Is the Starting Point and What Are the Plans for Further Efforts in Our Branch?

Our plans basically emanate from the principles of fuels and energy policy approved by the 15th Party Congress. The new situation which arose in 1973 on the world markets of fuels and energy, the effects of which gradually, with increasing urgency, affect our national economy, led to important decisions on the serious changes in the fuels and energy inventory.

The sharp rise in prices of refined fuels required a programmatic orientation toward a mobilization of our own resources, primarily in solid fuels and development of nuclear energy, toward reducing the growth of oil consumption and more intensive cooperation with the Soviet Union in acquiring higher deliveries of natural gas, but also toward maximum conservation of fuels and energy throughout our national economy.

On the other hand, we must state with all candor that we have not achieved higher effectiveness in fuels and energy source utilization.

The answer to the fuels and energy balance lies principally in efficiency and economy in consumption. But even assuming that we achieve important savings, the national economy will require a continued increase in brown coal extraction. Special attention must be given to the first 3 years of the Seventh Five-Year Plan when two traditional steam electric plants, Prunerov II and Melnik III, will become operational. They will consume 7-8 million tons of brown coal annually. This operation should, of course, at the same time allow us to achieve reduced consumption of standard fuels for the production of electricity.

It will not be an easy task, we must, quite frankly, recognize that we will be using coal with ever lower caloric heat emanation.

The primary role belongs to the North Bohemian brown coal region. The situation there is most unsatisfactory and demands principled resolutions. We cannot reconcile ourselves to the fact that in the first half of the year we face a coal extraction shortage in the region of 1.4 million tons, 9 million cubic meters in unprocessed ore. Readiness of coal reserves for extraction is consistently falling behind and the situation this year is the worst since 1973.

The basic cause of this problem is that we have not achieved the goals of planned concepts of developmental quarries, while small quarries and deep mines are not only fulfilling their tasks in the Sixth Five-Year Plan, but are exceeding them. It is necessary to employ in this region radical and quite extraordinary approaches to implement the most vital measures to improve earth removal, and resolve other important tasks at the much-needed large quarries. Furthermore, we must ensure reconstruction of earth movers, delivery of new, reliable heavy engineering technology, eliminate defects and effect necessary adjustments on the K 10,000 balance the drop in the development of the Maxim Gorkiy and Czechoslovak Army quarries, implement timely progress of mining fronts and needed investment in the labor force, provide housing to ensure worker stability and, last but not least, raise the quality of management on all levels, including labor, technological, and economic discipline.

We must also not forget that the selection of personnel servicing complicated and expensive technically advanced equipment must be given greater attention, in order to make sure that we maintain high moral, political, and professional standards among workers, while simultaneously adjusting corresponding material incentives.

The effort to improve the development of the Most and Sokolov areas is being undertaken through a form of concentration of extraction capabilities, and extensive reconstruction and introduction of complex technology in equipment. We must adapt not only extraction operations, but all our efforts in these areas to this extensive program. All of us working in the national economy must realize that all these measures, necessarily linked with further progress in extraction, must be implemented without delay, since so far we have been unable to find a solution which would ensure the level of brown coal extraction prescribed by directives.

With respect to depth, it is clear then that we must eliminate narrow spots in capacities so that we raise the daily extraction volume. To dig for ore in currently operating mines, as well as in the construction of new ones, we must ensure high-quality depth and penetration technology and other equipment needed not only for preparatory operations, but for the needed results in extraction proper.

It goes without saying that, along with further development of coal and lignite extraction, we must consistently create conditions for smooth transport of the coal to users by making sure that there is sufficient and appropriate railroad equipment available to fit the needs of the region.

In the development of gas-related operations, we will continue to rely on import of natural gas from the Soviet Union. In order to ensure its smooth transport here, as well as to other countries, we must complete the construction of the system of transit gas pipelines, and provide our own maintenance and repair capability in order to make operations along this system highly reliable.

As to oil and natural gas from our own sources, we expect higher yield only in natural gas. In this connection we must maintain technological preparedness for drilling as deep as 5 to 8 kilometers and, of course, drilling and other technology which the enterprises will need must be in place.

In the energy and power distribution industry, compared to past years, the situation will be better in production mechanism. Nevertheless, we face a demanding task in steam electric plants due to the lower quality and available supply of brown coal. It will, therefore, be necessary to adapt the technology of electric plant outfitting to optimum utilization of that grade of coal which we have available. Much more attention must be devoted to reconstruction, repairs, and maintenance of electric and thermal plants, in order to have fewer breakdowns than in the preceding period. In accord with conclusions of the 15th CPCZ Congress, we must focus aggressively on the role of nuclear energy.

That problem is dealt with in close cooperation with the CEMA countries, especially the Soviet Union, with which we have concluded a long-term cooperative program agreement reaching till 1990.

This program provides that already in the Seventh Five-Year Plan about 85 percent of the increment in electricity production, by 1985 in the amount of about 15 billion, will be produced in nuclear electric plants. At the same time we must, naturally, develop construction of more electric plants so that in 1990 we will reach at least 7,500-8,500 mw in installed performance.

Parallel with the construction of nuclear electric plants, we must also develop needed construction of hydroelectric installations and undertake reconstruction of condenser electric installations for overall electricity and heat production. The demanding task which awaits us in the centralized heat supply is truly unique and represents the only way to guarantee sufficient resources for heating the population's housing units during the Seventh Five-Year Plan.

For the purpose of achieving growth in the fuels and energy base we have allotted 102 billion korunas, and additional investment capital of 20 billion korunas will be allocated by the national economy to increase effectiveness and economy in energy consumption and ensuing investment.

The program of capital investment which awaits us is of an extent such as we have never been required to implement before.

Allow me now to touch upon the problems emanating from the "Set of Measures for Improving the Planned Management System" and its application to the conditions in our branch and ministry.

The starting point of the "Set of Measures" consisted of:

- analysis of effectiveness of the present system of management,
- preliminary results of the experiment in management effectiveness and quality in selected processing economic production units,
- experiences of the other socialist countries, especially the Soviet Union.
We made good use of the Soviet document of July 1979 on improved planning and higher effectiveness of the economic mechanism in achieving more effective production and higher quality labor.

What Are the Basic Goals of the "Set of Measures?"

The "Set of Measures" strives to direct all components of the system to become one entity aimed at a common goal, i.e., first of all, to convince enterprises that, instead of allowing negative influences to soften their plans, they should be eager to accept progressive plans which, in the development cycle of achieved real results, will enhance growth in the reproduction process and its effectiveness. The "Set of Measures" is intended to demonstrate to worker collectives in enterprises that it is in their own interest to carefully monitor scientific and technological development and apply its results more actively than heretofore, to raise the technical level and quality of products, and to adapt their production processes more flexibly to the needs of domestic and foreign customers. Last but not least, the "Set of Measures" is meant to exert strong economic pressure on a substantial increase in savings in the use of all types of fuels, energy, raw and other materials, on their most efficient utilization in top-quality production with a corresponding price range.

The "Set of Measures" maintains that only discerning and creative utilization of all instruments of direct or indirect management in which the focal point is the national economic plan (and I would like to underscore five-year plan), can further strengthen the effectiveness of the system of planned management.

Even though the introduction of the "Set of Measures" into economic life will be a fairly long-term process, in one area we should achieve a turnaround as fast as possible, namely, in focusing the attention of all workers on materials, i.e., processed materials, raw materials, fuels and energy. Today, in importing them, we are paying half as much more than in the early 1970's. To pay 50 percent more for the same amount means exporting 50 percent more products which pay for the imports.

In the first place, the "Set of Measures" deals with improving the planning process, its stability, its mutual relationships, and its meticulous preparation. Furthermore, it deals with khozraschet, fiscal matters, credit, prices, producer-consumer relations, and the entire system of motivational, stimulative, but also punitive, measures in achieving planned tasks and

observance of ceilings. In the last section the "Set of Measures" deals with improving the organization of the production and technological foundation and methods of management.

The thrust of the "Set of Measures" is primarily directed at the processing industry. For the other branches and sectors of the national economy, we must allow certain exceptions. These must respect the individuality of certain branches and sectors, naturally, in a manner which would not lower the effectiveness of the general provisions of the document.

For the application of the "Set of Measures" to the conditions of the Federal Ministry of Fuels and Power jurisdiction, a management commission was established whose task it is to ensure coordination and fulfillment of the tasks emanating from the document. We have developed the application of the "Set of Measures" to our branch and we make this elaboration available to all economic production units and, in consultation with the UVOS, to appropriate union bodies.

This published document must be considered open-ended, and it will be necessary to complement it with appropriate management measures in relation to the gradual issuance of amended or brand new all-state economic directives. I should say a few words about the exceptions. They were authorized in the sense that the setting of price ceilings on products manufactured on the basis of scientific and technological development, is limited in our branch to engineering production. As to the indicator of the percentage of products of high technical quality, we will be applying this indicator only in case of need in special-purpose organizations. The indicator "growth of kilogram prices" which is typical in engineering, will also be applied only to such organizations.

As to the indicator of selected products to carry out targeted programs, we will again apply it only in special-purpose organizations. Evaluations and stimulation of construction stage completion will be conducted, with the help of network analysis, in the form of graduated deadlines.

With respect to the growth of labor productivity in the state plan, it will be basically set in our branch in proportion to our own adjusted performance rate. There are no objection to its being set and expressed in a natural indicator, as we have been doing until now in the economic plans of economic production units.

The Federal Ministry of Fuels and Power proposal to raise the number of workers, as we have been doing, by prorating overfulfillment of extraction in the work force plan, was not accepted. The size of the work force will be set in absolute terms and cannot be adjusted automatically, rather the set number can be exceeded only by the increment of workers with changed qualifications.

The basic rentability indicator in our branch will not be the rentability of operating assets as envisaged in the general section of the "Set of Measures." Rentability of operating assets will have only orientational significance. We will rather base our evaluation on profits determined by the calculation of cost per each principal product.

In the energy and gas industries, we have been allowed in the Seventh Five-Year Plan a deviation in plan evaluation in the volume and structure of resources and marketing.

As to redistribution of profits and write-offs, we must definitely adhere to the general directions with the understanding that, due to varying natural conditions, we retain the possibility of utilizing redistribution of profits on branch level and redistribution of write-offs in the economic production units in the mining, energy, and gas industries.

We continue to maintain joint accounting in the energy industry. However, some adjustments emanating from changed conditions as outlined in the "Set of Measures" will be necessary. As to budgetary funds, we set them up in those concern-type organizations whose conditions are right for it. With respect to the so-called development fund, it will be set up only in special-purpose organizations, i.e., in engineering and construction. We will definitely not set it up in coal and in energy concerns. We have been tasked, in the adjustment of wholesale prices of fuels, electricity, and gas--which will be carried out on 1 January 1981--to again evaluate the possibility of setting up development funds and present our views, together with appropriate calculations.

The implementation of credit relations depends on what level of operations is centralized or decentralized in all areas of management. For example, if an enterprise acts as an investor, credit relations must be handled on the enterprise level. If centralization is conducted on the economic production unit level, then credit relations can simply be centralized also.

Wages payable will be set absolutely for all elements of management, and this includes the basic wage fund, as well as the incentive fund. In our branch, the basic wage fund will not be cut, even when failure in fulfillment occurs. The size of the incentive portion will be conditioned, in the production of fuels, on production volume expressed in real units delivered and, instead of adherence to the planned structure of sales, we were instructed to set additional conditions on the basis of effectiveness and quality.

In electricity production, we were authorized an exception in using the technoeconomic indicator which best expresses the effort toward effectiveness and quality, rather than sales structure. This means, for example, the indicator of measurable consumption of fuels per kilowatt hour or other unit. We were also permitted, and this is important for new assets, to set independently in trial operations of new assets the volume of wages payable in the form of an absolute ceiling, without recomputation even at the stage of plan fulfillment.

The "Set of Measures" in our conditions must be directed especially at a radical turn in effectiveness of capital investment and in the utilization of fixed assets, at improving mine concentration especially by raising daily extraction quotas, at increased conservation in transportation and fixed assets maintenance, and at improving labor productivity.

We have to differentiate indicators of personal material incentive of workers in tasks and ceilings for which they are responsible and, finally, we must intensify intraconcern and intraenterprise management and planning with the aim of increasing categorically, and under all circumstances, the pressures toward economy in the whole reproduction process.

I am aware that the "Set of Measures" can help to gradually reduce certain substantive problems. However, unless we are able to balance our annual and five-year plans, its effectiveness will be limited.

(The next portion of Josef Farka's address will be published in the next issue).

9496

CSO: 2400

HAMAN VIEWS ENERGY, FUELS DEVELOPMENT, CONSERVATION

Prague RUDE PRAVO In Czech 10 Jul 80 p 3

[Article by Josef Haman, secretary of the CPCZ Central Committee: "Continuous and Persistent Attention to the Development of Sources of Fuels and Energy and to Rationalization of Their Consumption"]

[Text] Through the entire process of the building of socialism the CPCZ has paid attention and given priority to the development of the fuels and energy base. The achieved results are reflected, for instance, in the fact that over the past 25 years the total consumption of the primary sources of energy climbed from 45.2 million tons of specific fuel in 1955 to 105.6 million tons of specific fuel in 1980, and the consumption of electric power from 15 billion kWh in 1955 to 74.5 billion kWh in 1980. A systematic expansion of fuel and energy resources was of vital importance for the stability and dynamism in the development of our economy and of the living standard of our population, and served as convincing proof that the general line in the building of socialism, planned in detail by the CPCZ, is correct and its implementation is successful.

The profound, basic and lasting changes in the conditions under which the sources of fuels and energy and other raw materials and materials are produced and which have been evident since the mid-1970's have been affecting Czechoslovakia--as they have every other industrial country--more and more harshly. This makes it the order of the day for all sectors and levels of management, from top to bottom, to pay much more attention to supply the needs of fuels and energy and other raw materials for our economy. Effective exploitation and use-efficiency of those sources will affect the entire socioeconomic development in the 1980's to a considerable extent. This is one of the vital factors of our strategic objectives for higher efficiency of our national economy and better quality of all labor.

In accordance with the directives of the 15th CPCZ Congress and with the action of the Central Committee which has been dealing systematically with the problems of fuels and energy, the CPCZ Central Committee Presidium and the CSSR Government are taking several decisive steps to propose a detailed plan and to implement the state energy policy which will enable us to overcome gradually the complex problems in this area. That, however, is a challenging task involving exceptionally great efforts and costs.

Enormous funds are being invested to develop our domestic coal production and to build our nuclear power system. It is only with the great aid of the Soviet Union that we are able to build our nuclear engineering system which will become an essential source of energy increases as early as in the Seventh Five-Year Plan. A long-range program of rationalized consumption and conservation of fuels and energy has been planned in detail and is now being introduced in practice. The CSSR is taking an active part in the solution of problems involving fuels and energy within CEMA. The guaranteed, dependable, huge deliveries, particularly of crude oil and natural gas, from the USSR are of singular, irreplaceable importance as concerns supplies for our needs of fuels and energy in the 1980's. They are so much more appreciated because their prices and payments for them are based on substantially more favorable conditions than those developing in world markets. The vital importance of Soviet deliveries to our economy is attested by the following data:

In the overall consumption of primary sources of energy amounting to 101.3 million tons of standard fuel in 1979, total imports represented 42.5 million tons of standard fuel, of which deliveries from the USSR amounted to 37.9 million tons of standard fuel.

In the total consumption of crude oil--18.9 million tons--imports amounted to 18.8 million tons, of which the deliveries from the USSR totaled 18.3 million tons; in the total consumption of natural gas, amounting to 7.6 billion cubic meters, import shares totaled 6.77 billion cubic meters, all of which comes from the USSR.

A Review of the Past Winter

According to the practice applied in recent years the CPCZ Central Committee Presidium discussed in June the report by the CSSR Government on the "assessment of supplies of fuels and energy for our national economy and for our population during the winter season of 1979-1980, and of preparations for the winter of 1980-1981," and in this context, it decided the further steps and tasks for party organs, organizations and for the communists.

High marks were given to the extensive work performed by the party, state, economic and labor-union organs and national committees implementing the platform and the decisions concerning the solution of the fuel and energy problems, adopted by the CPCZ Central Committee Presidium and the CSSR Government in June 1979. As a result of the efforts, understanding and initiative of our working people, especially miners and power engineering workers, the supply of fuels and energy was significantly improved last winter over the 1978-1979 winter season. The fulfillment and overfulfillment of the planned coal production in 1979 contributed to the generally continuous deliveries. A very important step was generation of power launched in the first unit of our first industrial nuclear power plant, the V 1 in Jaslovske Bohunice, which saved more than 2 million tons of lignite in our power engineering system last year alone. An important contribution was the delivery of natural gas from the USSR, expanded by nearly 30 percent as a result of the completion and introduction into operation of the Soyuz gas pipeline, one of CEMA's

largest and most successful joint construction projects. We have progressed in the implementation of the program of rationalization and conservation in the consumption of sources of fuels and energy, including power fuels. This confirms, among other things, the rationale of the measures adopted last year to control their consumption, including the introduction of the daylight saving time and higher retail prices of fuels, power and propellants in the interest of our population's more economical utilization and consumption of them.

The key factor in successful preparations for the past winter was the advantageous expansion of the supplies of fuels in our national economy, particularly the supplies of coal for power generation in steam power plants, as a result of all the adopted measures and of the people's initiative. Late in 1979, for instance, coal supplies in our national economy were 4.5 million tons higher (roughly 100 percent higher) and supplies of coal for power generators in steam power plants were as much 2 1/2 times larger than in the preceding year. That was the main reason why continuous deliveries of electric power could be maintained during the 1979-1980 winter season without any emergency control measures, even though the production of coal in the North Bohemia Lignite Basin considerably fluctuated.

On the whole, the successful handling of the fuel and energy supply last winter confirms that even in the more complex economic conditions today very demanding tasks may be successfully fulfilled with concerted efforts of the party and society, with efficient political-organizational work, with a responsible party approach on the part of the leaders, and with the people's initiative.

Do Not Yield to Complacency

After the positive assessment of the work accomplished, the Presidium of the CPCZ Central Committee stressed very seriously that it would be a great political mistake to overestimate the achieved results, to succumb to complacency, to underestimate the complexity of our future tasks, to relax the efforts to give priority to the development of our fuel and energy base, and to deemphasize, even temporarily or partially, the economical utilization of fuels and power.

The problem concerning fuels and energy in our national economy is not an ephemeral issue stemming from transient fluctuations in their production or supply, but rather a long-range quest related to the substantially changed conditions under which fuels and power are produced, as well as to the ponderous problems in the structure and over-all efficiency of our national economy.

Naturally, the fact that the delivery of fuels and power last winter proceeded smoothly cannot be regarded as the final solution to our fuel and energy problems. That is a long-range task which calls for continuous, concerted efforts and for considerable funds--so much more so because the outlook for the immediate future indicates that the tensions between the realistically attainable resources and the escalating demands for fuels and power in our economy not only will not diminish, but will even increase.

In order to cope with this situation--and indeed, our economy is fully capable of coping with it--it is imperative to focus our energies and attention even more intently on the area of fuels and power, to teach our working people to be extremely economical and to use every advantage of our socialist system of planned management more intensively in order to achieve more rapid progress in the production of energy and in rationalization of its consumption. From the correlation of problems concerning fuels and energy with the development of our entire national economy it understandably follows that the more vigorously we progress in improving its overall efficiency, the more advantageous will be the conditions for the solution of the problems of fuels and energy.

Prompt, responsible and thorough preparations of the fuels and energy base and of our entire national economy for the 1980-1981 winter season--even if the winter turns out to be long and hard--and thus, also for a successful transition to the next five-year plan, occupy the most important place among immediate tasks in that area. This task is so much more important because certain tendencies which began appearing this year in the area of fuels and energy must be controlled by effective measures.

To Improve the Development in the North Bohemia Basin

Our domestic coal production carries now, as it will in the Seventh Five-Year Plan, the greatest weight in our fuels and energy balance. Our miners, who are meeting the increasing tasks of production in this vital sector of the building of socialism with enormous devotion and without regard to their free time, deserve great appreciation from our society. In their overwhelming majority, the basins and mining enterprises are fulfilling and overfulfilling this year again their planned tasks. A complex situation, however, has developed particularly in the North Bohemia lignite basin which has the greatest share as well as task in the planned growth of our coal production. During the first 6 months of the current year the shortfall in the production in that basin amounted to 1.326 million tons, and thus far, its volume is 953,000 tons below the actual production achieved during the same period last year. This situation is mainly the result of a failure to meet the tasks in strip mining.

The deep-seated, long-lasting causes of this development stem from the fact that during the 1970's the production and installation of a new generation of mining equipment with substantially higher projected capacities failed to achieve the required operational reliability and to meet the planned output. As a result, mining preparations failed to keep in step with the increased production toward the end of the Fifth and during the Sixth Five-Year Plans, which is reflected in the deterioration of mining preparations and which has hampered the implementation of the current programs. Despite some partial achievements, the adopted programs for the reconstruction of the existing equipment and for the modernization of the newly delivered giant machinery and the long-distance belt transport from the Klement Gottwald Iron and Machine Works VHM in Vitkovice are not being consistently implemented. It is therefore an essential political task, first of all of the communist managers in the

Ministry of Fuels and Energy, in metallurgical works and in heavy engineering, and in the management of the supplier VHI and enterprises, to focus the necessary energy and funds so as to deliver the supplies more efficiently and promptly and to provide services necessary to master this task--even at the price of emergency measures.

The communists in the leadership of the North Bohemia basin and in individual mines must be urged to step up the struggle to overcome the existing shortcomings at a faster pace, to mobilize internal reserves more efficiently, particularly by using machinery and installations in shifts, to stop the untoward development, and to achieve steady, high daily production, and thus, to fulfill the plan.

Capital investment in the North Bohemia kraj, which is among the most important statewide priorities, is of considerable importance for the further development of the basin. It is an essential precondition not only for the achievement of the planned growth of production and transport, but also for an improvement of the working people's living conditions and for the recruitment of the labor force required for the further development of the basin. In spite of certain positive results achieved in this direction, the current situation shows that now is the time to adopt additional basic measures in order to acquire the required construction capacities for successful progress of the planned construction. Naturally, its investment planning must also be upgraded.

Fulfillment, and if possible, also overfulfillment of the planned coal production in every pit, in every basin, are of vital importance for the development of our economy in the second half of this year, for smooth deliveries of fuels and power, and for proper preparations for the winter season. The CPCZ Central Committee Presidium expressed the conviction that, as in past years, the miners will not spare any effort to fulfill honestly their duty to our socialist society.

More Attention to Investments in the Fuel and Energy Base

Our society is investing enormous funds--roughly one third of industrial investments--to strengthen the fuel and energy base. It is therefore extremely important to use these funds rationally so that they will produce adequate results. This calls for substantial improvements in the standard of investment activities in the Ministry of Fuels and Energy, as well as in the quality of work rendered by the suppliers.

Concerted efforts must be made to fulfill the tasks in the construction which will help control the fuel and energy situation this year and also next year. For that purpose the power plant in Melník III, and the first units of the power plants in Prunérov II and in Čierný Váh must be put into operation, and reliable services must begin on schedule in technological mining units in the quarries in Vrsany and Chabarovice and in other key capacities.

Deliveries of spare parts and assembly capacities must be substantially improved so as to make up for the shortfall in the planned general repair and overhaul of the 110 MW and 200 MW power units, and thus, to acquire prompt and dependable capacities for the coming winter.

A critical word must be said here that, unlike in 1979, certain enterprises and departments are less concerned about delivering supplies for capital investment, general repairs and maintenance of power units in the fuel and energy base. This is unacceptable. It should be stressed that the demand articulated by the CPCZ Central Committee and by the CSSR Government still applies, namely, that the deliveries for the development of production, transport and rationalization of consumption and power be given the necessary priority and unconditionally fulfilled within the set deadlines and at the planned level of quality.

Party organizations and territorial party organs must fully support this demand and consistently call for its fulfillment, for which the leading workers are personally responsible. Naturally, it must be demanded just as emphatically that the technology supplied to departments of fuels and energy be used much more economically.

Nuclear power plants have already gained a prominent place in power engineering construction in our country. A significant contribution to our power engineering this year was the introduction into operation of the second 44 MW unit, and thus, the completion of the construction of our first industrial nuclear power plant, the V 1 in Jaslovske Bohunice. The increment we shall obtain after the completion of other nuclear plants now under construction, namely, the V 2 in Jaslovske Bohunice and the V 3 in Dukovany, will have a major share--more than 65 percent--in the overall increment of electric power generated in the Seventh Five-Year Plan. The CPCZ Central Committee Presidium and the CSSR Government therefore attribute exceptional importance to superior quality and accuracy in their planning, construction and operation.

By a special decision last year the CPCZ Central Committee Presidium assigned specific tasks and responsibilities in this respect to all enterprises and organizations participating in the construction of said nuclear plants, to the communists and party organizations active in those enterprises, as well as to territorial party organs managing them. The fulfillment of that decision must be subject to continuous control. Scrupulous and unconditional fulfillment of all challenging demands of technical and operational discipline is a categorical imperative in the manufacture of the installations, in the construction and in operation of the nuclear power engineering system.

More Economical Utilization of Electric Power

Because of the adopted measures, mobilization of reserves, and better conservation, electric power has been able to be supplied to major consumers since March 1979 in essence smoothly, in accordance with the prearranged schedule, without emergency brownouts or area blackouts. Obviously, this was an important precondition for an easier course of production and for better organization of labor. It appears, however, that some leading workers have begun to assume incorrectly that the questions of discipline and economy in the consumption of electric power are becoming less urgent.

Unlike last year, the consumption of electric power by large-scale consumers this year began to develop less satisfactorily. While the consumption by small-scale consumers and by the population during the period from January to May 1980 remained essentially at the 1979 level, it has climbed out of proportion in the case of large-scale consumers. The consumption of electric power from the public network in this category increased by 7.8 percent for the January to May period over 1979, and the growth of industrial production during the same period was 4.2 percent. Even in view of the fact that, in order to save high-quality coal, there are legitimate reasons for partial cuts in electric power generated in power plants of our industrial enterprises, the overall development of electric consumption on the part of large-scale consumers cannot satisfy us.

By the same token, the unfavorable course of the daily load on the electric system continues, power consumption peaks have not been reduced at an acceptable rate, and power consumption in the course of shifts, days, and weeks, has not been balanced. It is therefore necessary to intensify the measures aimed at rationalization of all operations in power engineering plants even more consistently than before.

As shown by last year's experience, it is extremely important for good planning for the winter season to store up supplies of fuels required for our national economy, above all those needed in electric power plants. For that reason the CPCZ Central Committee Presidium and the CSSR Government stipulated the main political-economic task to store up supplies of at least 3.4 to 3.8 million tons of lignite and 1.1 to 1.3 million tons of black coal in electric power plants before the 1980-1981 winter season. To meet this target, considerable amounts of electric power must be conserved during the rest of this year. Although as of 30 June the coal supplies in power plants were far above those in the preceding years of this five-year plan, it may be necessary to resort, in accordance with the further development of coal production and consumption in power plants and with other factors, to certain emergency controls which will affect the wholesale consumers, in order to assure that power plants maintain the above-mentioned supply levels.

These facts must motivate the communists--the leading workers, party organizations and collectives of workers--to take necessary steps for better conservation of electric power. Ample experience has confirmed that to do so, sufficient opportunities are available. The way they will be used depends mainly on the political interpretation of the significance of this task and on efficient organization of its fulfillment. At the same time, all efforts aiming at better control and planning standards, and conservation of electric power as well as other kinds of fuels and energy--and raw materials and materials in general--must be substantially stepped up in our industry and other departments.

Attention to Proper Supply of Fuels and Energy for the Population

In the effort to resolve the situation of fuels and energy, the CPCZ Central Committee stressed that even under the existing problems, the population has

priority in deliveries of fuels and energy. Because of this concern, for example, 5.2 percent more coal was delivered to the domestic market this year during the January to May period than during the same period last year, and the schedule for deliveries of solid fuels to Coal Storage has been slightly overfulfilled, although certain shortfalls are still apparent in the selection of the delivered coal. The management of the supplies must continue to be strict and economical in every kraj, okres and community, so that they do not fall under last year's level, and in particular, the existing sources must be used correctly and fairly to cover the needs of our households, health and social institutions, schools, etc.

Certain problems are evident particularly in deliveries of graded coal where sources are inevitably declining, due to the quality of the produced coal and due to long-range changes under way in production technology. Appropriate organizations must therefore substantially improve the initiative for its replacement by dust coal, most of all, in case of the large-scale consumers, so that the graded coal thus conserved be made available for deliveries to the population. Thus far, however, the programs stipulated for conversion of incinerator units to low-grade fuels have not been implemented to satisfaction.

The consumption of wood for fuel increased last year, and following that positive experience, the effort to utilize that type of fuel must not slacken this year.

Greater Emphasis on Conservation and Rationalization

The CPCZ Central Committee Presidium and the CSSR Government reemphasized the essential importance of rationalization and austerity in fuel and energy economy. It is widely known that conservation, better exploitation and higher use-efficiency of fuels offers us also the least expensive, most effective, least investment-intensive and ecologically soundest means to overcome the stresses in the fuel-energy balance sheet. In our case this applies so much more because, as compared with the international situation, our consumption of primary sources of energy remains, despite partial improvements, disproportionately high in relation to the created national income. Although the structure of our fuel and energy sources--as well as of the current industrial production, whose solution is a long-range task--exerts an indisputable objective influence, many more opportunities are still open for efficient mobilization of the existing reserves, mainly on the basis of measures involving organization and rationalization, often even without extensive investment outlays.

For the first time in the five-year plan, last year the planned task of fuel and energy conservation not only could be fulfilled, but was even overfulfilled to a not insignificant extent. The vital issue at this time is to intensify this year, and particularly during the next five-year plan, this positive tendency already initiated.

In the next five-year period it will be necessary to count on substantially smaller increments of primary sources of energy than in the past five-year

plans. In view of the very limited chances to increase the imports and our domestic production of energy sources, as well as in view of the fact that most of the nuclear power plants now under construction will not begin full operation before the second half of the Seventh Five-Year Plan, individual departments, branches and enterprises must increase production essentially with the existing or only slightly higher limits of fuels and energy, particularly in the first years of the Seventh Five-Year Plan. Without substantially increased conservation the needs of our economy and society cannot be covered, as concerns fuels and energy, in the next five-year plan.

Heat conservation in our economy must be approached with more determination because heat production consumed a total of roughly 25 percent of all primary sources of energy. Our national committees as well as our economic organs must stress much more their concern about austerity even in this sector; for example, they must avail themselves increasingly, and more effectively, of the existing means to measure and control heat consumption, and to take other necessary measures.

Consistent and efficient implementation of the adopted long-range program for rationalization and conservation in the consumption of all types of fuels and energy must help above all to fulfill all those tasks. Together with structural changes, particularly in industrial production, this program, which involves all vital areas of our national economy, must markedly reduce the overall demands on power in our economy during the 1980's. Therefore, primary attention must be focused on the priority fulfillment of the tasks included in this program even now, during the planning of the Seventh Five-Year Plan in enterprises, VNI [economic production units] and ministries, and actions which will conserve energy efficiently even during the first years of the next five-year plan deserve special emphasis. This pertains equally to direct and indirect savings, savings of ferrous and nonferrous metals, savings of concrete and other construction materials, savings of chemical raw materials and other products which make high demands on power engineering.

As in all industrial countries today, we must achieve further substantial intensification of political, economic, organizational and administrative pressures aimed at the strictest possible economy in the consumption of fuels and energy, to use more efficiently and more rapidly all the known and available opportunities for conservation, to apply more promptly all new achievements of sciences and technology which are now focused all over the world on the areas of fuels and energy, and to castigate more resolutely in public any display of irresponsibility and negligence in our economy. Our people's vital interests do not permit any complacency or leniency in this matter. In this respect, the implementation of the adopted Set of Measures for Improving the Planned Management System of the National Economy After 1980 must focus more consistently on the real growth of costs for the supply of sources of fuels and energy, as well as support more effectively material incentives in the sphere of production and exert increasingly stronger economic pressures for the maximum conservation and valorization of fuels and energy and of other raw materials and materials.

Party Work in Planning for the Winter Season

The need to keep the struggle for conservation of fuels and energy constantly in the focus of attention of our party, state and social organizations, and to turn it into a vital factor in the development of socialist competition and pledge movement is still very much in evidence; positive experience and achievements must be promptly shared and popularized, and the force of social control and criticism must be targeted on shortcomings.

The ministries, VHI and enterprises are called upon to begin immediately the demanding fulfillment of all tasks connected with proper planning for the winter season of 1980-1981, which means that this summer and autumn must be used well and nothing can be left to chance.

Party organs and organizations gained ample valuable experience last year in the work of political organization and education in fuel and energy planning for winter. This experience includes the application of the party's right to control the fulfillment of the deliveries, construction and general repairs of installations in the fuel and energy base, to organize the initiative and activity of workers and technicians, and to teach all our citizens to use fuels and energy conscientiously. The unified and coordinated approach on the part of the communists--managers of the state, economic and social organizations and national committees--was most important for the fulfillment of the above-mentioned tasks.

The principles and objectives set up for this process by the CPCZ Central Committee Presidium and the CSSR Government in the June 1979 platform and decisions fully apply. On the basis of last year's experience and in view of our new needs, it is the duty of the party organs and organizations to adopt their own political-organizational measures and to develop the initiative for broad-base work in the interest of good planning of the fuel and energy economy for the coming winter season.

These tasks must be approached with the awareness that they involve one of the vital factors determining the future socioeconomic development of our society. If mastered successfully, they will help further advance our country's building of socialism and meet the goals of our program.

9004

CSO: 2400

GERMAN DEMOCRATIC REPUBLIC

ACADEMICIAN REVIEWS PROCESS OF GDR INDUSTRIAL GROWTH

East Berlin EINHEIT in German Vol 35 No 5, May 80 signed to press 7 Apr 80
pp 500-506

[Article by Prof Dr Helmut Koziolk, economist, candidate member, SED Central Committee: director, Central Institute for Socialist Economic Management, SED CC; member, GDR Academy of Sciences; corresponding member, USSR Academy of Sciences; member, EINHEIT editorial board: "Industry--Key Sector of Our National Economy." A translation of the Willi Kunz article cited in footnote 3 below is published under the heading, "Effects of GDR-USSR Economic Plan Coordination Discussed," immediately following the Koziolk article. A translation of Koziolk's earlier EINHEIT article cited in footnote 9 below is published under the heading, "Significance of High National Net Income Explained," in JPRS 74531, 6 Nov 79, No 1950 of this series, pp 57-66]

[Text] Based on the liberation from fascism, our industry developed dynamically and steadily under complicated conditions. What marks the profile of our industry, in which direction is it being perfected, what role does it play in economic growth as the chief producer of the national income, and how does it contribute to the development of other public domains? With special emphasis the article shows its importance to scientific-technical progress and how the conditions for its acceleration keep improving thanks to the combines.

Looking back 35 years after the Red Army's victory at the course we have taken side by side with the USSR, we can say with justified pride: the workers class and the working people of our country, led by their Marxist-Leninist party, have made use of the historic opportunity given them by the liberation of the German people from Hitler fascism. The Soviet Union and its army gave us the chance to start establishing a society without exploitation and suppression. Today such a society has become reality in the GDR, and a stable foundation was laid for further shaping the developed socialist society and for a high standard of living and social security for all its

citizens. Thanks to the diligent work of its working people and their high educational level, the GDR is a modern industrial state today with a developed agriculture, demanding scientific-technical achievements and a noteworthy foreign trade. It holds its place among the 10 leading industrial countries in the world.

Oriented at full employment, prosperity and stability, SED policy finds its material foundation mainly in industrial efficiency growth. Being the principal area of our economy, where the largest part of the workers class, the leading force of our society, is concentrated, industry produces the predominant part of our material goods whereby it creates the decisive prerequisites for ever better satisfying our demands. If in "Das Kapital" Marx already analyzed the revolutionary nature of industry and its technical base, pointing out that it "through machinery, chemical processes and other methods constantly transforms, with the technical production foundation, the functions of the laborers and the social combinations of the labor process,"¹ his words have been confirmed, and this not only by the course our industry has taken thus far. The fact rather is that it becomes increasingly important in assessing the social role of our industry that it, on the basis of scientific-technical progress--and through working together with other areas, of course--, creates the material prerequisites for the intensification and rationalization, the increased labor productivity and the higher efficiency and quality of labor in all other areas of the economy as well. Thus it "decisively contributes to steady and proportionate economic growth. Through increasing lucrativeness it provides most of the means for expanded reproduction and for satisfying overall social needs."²

If in 1979 our economy produced as much national income as in the years from 1949 to 1953 together, if between 1970 and 1979 it rose to 152 percent (in constant prices), and if finally the national income per person working in the production area rose from approximately M 16,300 in 1970 to M 24,100 in 1979, it all mainly is the result of our improved industrial performance. Industrial output in 1979 came to a volume of more than M 351 billion at effective prices. Holding more than 60 percent of a share in the production of our national income in 1979, industry employs 38.2 percent of the working people, commands nearly 63 percent of the basic assets in the production areas of the economy, and handles more than half of all investments. It also predominates in export. In 1978, some 92 percent of our exports consisted of industrial products, 55 percent of it in machinery, equipment and means of transportation and 15 percent in consumer goods.

GDR industry has a modern structure today which is becoming more streamlined. The metal working industry--machine and vehicle construction, electrical engineering, electronics and equipment construction--produces more than 33 percent of the industrial output, chemical industry, more than 14 percent. Industrial areas as important for the population and for our export as the light industry and the foodstuffs industry hold a share of 16 and 18 percent respectively.

Our country's industrial development is marked by high dynamics. The decisive basis for this lies in socialist economic integration, especially in the constantly deepening cooperation with the USSR, which assures our industry over the long run with basic supplies in raw materials and highly productive equipment.³ Industrial output in 1978 was 8.5 times that of 1950. Compared with 1970, our production volume increased by 66 percent, our labor productivity by 60 percent. Industrial commodity production from 1971 to 1979 came to M 2.3 trillion.

Out of the Ruins

Our industry's successful course can properly be appreciated only if one considers what efforts were needed to surmount the consequences of our capitalist legacy, World War II, the cleavage of Germany, and the cold war, conducted against the GDR. The war had destroyed or rendered useless in the area of today's GDR circa 40 percent of the industrial capacities, 60 percent of the transportation vehicles, and 30 percent of our agricultural machinery. Added to that must be that the imperialist division of Germany was especially serious for us. Whereas the centers of heavy industry--mainly the basic materials and investment goods industry--were located on the territory of what today is the FRG, in our area we mainly had the processing industry, especially the light industry. Four obsolete blast furnaces in our area faced 120 mainly modern blast furnaces in the FRG in 1945.

Getting ready for a new social order, free from exploitation, while shouldering that kind of legacy, required clear leadership and incessant struggle from our party and sacrificial dedication by workers, engineers and scientists, whose most aware representatives took the lead in the work collectives and became the pioneers in socialist competition.

Through energetic assistance from the organs of the Soviet military administration, starting right in the first few days after the war, through their providing our population with work and bread, and through advice from experienced government and economic specialists and in many other ways and means, the USSR supported our reconstruction and eased our own efforts in seeking to overcome the consequences of our war and of our split and in developing our industry. "The Soviet Union reduced reparations and waived reparations deliveries from consumer goods production. Thereby, large amounts of textiles, shoes and other daily necessities could be distributed among the population. It turned out to be most beneficial that the USSR halted all dismantling after the armaments industry had been totally liquidated. Some 200 large-scale enterprises that originally were supposed to be dismantled were converted into SAG (Soviet Stock Company) enterprises. Many working people thereby could keep their jobs. Then the Soviet Union handed over 74 of these enterprises to the local governments. It furthermore made available part of the output of the SAG enterprises for supplying the population."⁴ In the SAG enterprises it mainly was where German workers learned the principles and practice of socialist economic management from Soviet communists.

If our industry today is compared with what it was to begin with, it becomes apparent that it was worth it for us to greatly concentrate for many years the investment funds we produced on establishing our own metallurgical base. That was the crucial precondition for our setting up all new industrial branches like power machinery construction, chemical installations, ship-building, petroleum and natural gas refineries and synthetics. We also developed a maritime economy and aviation. For agricultural large-scale production we had to newly develop most of our tractor and farm machinery construction and align certain areas in our chemical industry with our rapidly growing agricultural requirements.

Intensification--The Main Course for Our Industrial Development

Production intensification, which is the steady improvement of efficiency mainly by accelerating our scientific-technical progress, is now the main course of our industrial development. The 1976-1980 plan provides for achieving circa two-thirds of our labor productivity boost from using scientific-technical data and for getting the major part of our industrial production growth from that labor productivity boost. Such industrial development is of basic importance to increasing our economic capacity in accordance with the specific conditions in our country, and this to the extent "that external burdens increase, and even beyond that."⁵ Any advance in the further implementation of the main task calls for more of a growth in labor productivity today, and of efficiency, than in the early 1970's, while the demands made on our economic capacity have greatly risen and are rising, especially because of foreign economy conditions. For that reason, our tapping the qualitative factors of economic growth becomes still more of a focal point in our work.

In principle, further economic growth depends on efficiency improvements, on the cost-benefit ratio. Economically speaking, this balances the products needed for satisfying the needs of society and its members against total resource expenditures. Production growth more and more based on efficiency improvements means that the output of products, proper as to demands, grows faster than the expenditure in labor tools, devices and live labor, so that resource expenditure drops per production unit. That calls for a comprehensive use of the qualitative growth factors because they are the ones, after all, that enhance the effectiveness of resources expended and significantly affect the volume and composition, in terms of intrinsic value, of the social end product, particularly the national income. A better use of the qualitative growth factors brings it about that a relatively lower expenditure still will ensure production growth--in terms of larger volumes and a greater intrinsic value of the products. This also indicates the direct connection between qualitative growth factors and quantity of output.⁶

Key Role of Scientific-Technical Progress

Under the conditions where our economy converts to a predominantly intensively expanded reproduction as the predominant type of reproduction, qualitative growth factors are identical with intensification factors. Scientific-technical progress combined with higher skills for the working people is an

extraordinarily important qualitative growth factor because it most strongly controls production intensification, the renovation and modernization of the material-technical base, the growth and quality of our economic potential, an improvement in investment efficiency and boosts in labor productivity. Science, technology and education are in essence inexhaustible.

Marx already pointed out the interaction in the development of industry, science and technology. As he demonstrated, with the progress of big industry the production of real wealth depends less on the working time and the quantum of applied labor than on the strength of the agencies set in motion, which again are entirely disproportionate to the direct working time their production requires, but it all rather "depends on the general status of science and the progress in technology, or on the application of that science to production."⁷

Industry is chiefly responsible for intensification based on scientific-technical progress. It has become increasingly evident in recent years how important a role machine construction, electrical engineering and electronics, and chemistry play in scientific-technical progress. Their products mainly are the ones through which the results of scientific-technical progress enter all branches of the economy. That establishes the foundation for the rate of growth in labor productivity--together with the elimination or easing of heavy physical labor. Those areas are at the same time the mainstay of GDR exports.

Looking at the picture and tendencies of industrial growth in the progressive industrial countries, we have to take cognizance of the fact that the development of science and technology, the introduction of new products, procedures and technologies, and the changes in the economic structure at a global scale are proceeding at an unprecedented pace. It obligates us all the more to make great efforts in rapidly introducing the data of R&D projects to production, for there, after all, lie the main reserves, under our conditions, for accelerating scientific-technical progress. We have already been able in recent years to cut back greatly in working time and reduce energy and material consumption considerably through new procedures and technologies. In selected fields new technologies multiplied our productivity and released labor. The success of our efforts in this field also is attested to by that industrial commodity production rose by 166 percent from 1970 to 1979 yet the production of commodities with the "Q" quality seal, by 732 percent.

Especially important for the acceleration of our scientific-technical progress and hence for our export performance and for supplying our population has been the structural change in industry since the eighth party congress. While boosting industrial commodity production by 166 percent, the output of the electronics industry rose by 294 percent, that of the data processing and office machinery industry by 230 percent, machine tools by 222 and the chemical fibre industry by 221 percent. If one looks at particular production groups, the progressive structural change becomes still more apparent.

The proportion of digitally controlled machine tools in our overall output of metal-cutting machine tools rose from 10 percent in 1970 to 25 percent in 1979, in addition to the fact that the production of metal-cutting machines on the whole rose by 260 percent.

Another positive sign along with that progressive structural development of industry is that we succeeded in reducing the specific consumption of energy sources, raw materials and working materials per M 1,000 of industrial production by an average of 3 percent in 1977 and 1978 and of 4 percent in 1979. Especially great efforts were made in this field because the GDR is exceedingly much affected by the price hikes for energy sources and raw materials at the international markets and expenses are also rising fast domestically--due to the worsening extraction conditions. From 1971 to 1979 we invested as much as M 118 billion in developing our energy and raw materials base. That was 59 percent of our industrial investments throughout that period.

Among all our efforts at accelerating the rate of scientific-technical progress and improving our economic efficiency, it is our investment policy which becomes increasingly important. On it, after all, greatly depends our rapidly introducing the latest science and technology results in our material-technical base, so that we can achieve a worthwhile efficiency improvement. For that reason our party is emphatically oriented to an accelerated development and application of microelectronics, industrial robots, digital and nondigital machine controls and electronic computer technology. Resolutely it is urging a higher proportion of rationalization investments, which focuses on saving labor and jobs, and our increasing our own production of means of rationalization.⁸

The need to greatly improve our investment efficiency also results from fundamental requirements for our accumulation. The GDR economy finds itself under increased external burdens. That is reflected, among other things, by the objective limitations for our accumulation rate, especially in the producing areas of our economy, and this must be made up by higher efficiency in accumulation. That underscores the need for considerable changes in simple reproduction, and that in such a way that, in terms of value in simple reproduction, with respect to intrinsic values and the efficiency of replaced basic assets, expanded reproduction must increasingly be introduced. Efforts to that end thus far--especially through socialist rationalization--have helped modernize and renew our production machinery, expressed by the fact, for instance, that 38 percent of all our industrial equipment is at most 5 years old and 47 percent of our production equipment is automated.

The Main Producer of Our National Income

Industry is our main producer of our national income both in terms of intrinsic and use value, that is, in its unity of net product and new value. To realize that is of the greatest practical importance for achieving optimum efficiency. If we manage to reduce the production consumption for

a given volume of industrial commodity production, for instance, we receive more of a possibility for boosting our net product. If we manage to produce a net product in the form of high-grade equipment for rationalizing our own economy and for export products that bring in worthwhile foreign currency or in the form of a higher grade of consumer goods that can meet demands, we increasingly satisfy the real needs of accumulation and consumption. In connection with the industrial net product it must clearly be stated here that it often is a long way from raw material extraction to the finished product and that what matters is for every step on the way of the means of consumption or to the investment to be made as rational as possible. That way alone can we accomplish a relatively low rate of production consumption and products that have high use properties.

One of the most important current economic policy tasks is to produce a national income, including also mainly the net income--which we might simply also refer to as the social gain from material production--, primarily in the form in which it is needed for production intensification.⁹ That places a high demand on industry. By its end product it above all has to ensure that a steady efficiency improvement is principally brought about through accelerated scientific-technical progress, in other words, it must create the prerequisites for boosting the efficiency of productive accumulation but also for more efficient simple reproduction.

Wholly in line with the realization of Marx who said, with regard to capitalist accumulation, that "only such things can be turned into capital that are usable in the labor process,"¹⁰ we need in particular that sort of composition of our net income in terms of use value that will cause a maximum efficiency increase in our productive accumulation. So one must make sure that the degree of refinement in production can be raised in all industrial areas, especially in machine building, electrical engineering and electronics and chemistry. Of the greatest importance also is to achieve the kind of structural changes in our material-technical base by means of productive accumulation that will make possible systematically introducing microelectronics and, altogether, equipment and installations making a broad use of progressive technologies in production and production preparation and, in conjunction with that, further developing the socialist character of labor and improving our working conditions. Scientific labor organization in 1979 restructured or converted 232,500 jobs, and between 40,000 and 45,000 working people find their heavy, hazardous or monotonous working conditions eliminated each year.

A decisive condition for scientific-technical progress is a systematic and coordinated management of scientific-technical work on all economic levels that takes into account how rapidly the demands made on scientific-technical work are growing. International markets as well as the consumers in the GDR are demanding quality products that have to be produced through diminishing expenditures in working hours, material and costs. It must be appreciated as a resolute realization of that demand that the targets and tasks of our scientific technical work are measured against optimum international standards.

progressive developmental trends of great economic impact receive special attention, and the greatest concern lies with our improving our technological production level. By improving existing technologies and introducing new ones in production, significant advances can be made in socialist rationalization and essential preconditions can be created for high economic efficiency.

The conditions for an output that meets the international demands made on the scientific-technical level are favorable in GDR industry. If we are spending 4 percent of our national income right now for science and technology--which is in line with progressive international criteria--, it is of course our industry that greatly benefits from it. Mainly, however, a great scientific potential exists within industry itself: circa two thirds of all who are working in the economy in R&D are now concentrated there--mainly in the combines. Among the most important advantages of the combines is that they have a great economic capacity and an important intellectual-creative potential and thus can structure each phase of the reproduction process with highest efficiency. What matters now is to translate into higher economic efficiency the new and greater possibilities management and planning have received through our turning the combines into unified economic organisms for cohesive scientific-technical production processes and sales. At a recently conducted experience exchange, the collectives of the leading combines persuasively demonstrated how through the political management of economic processes, on the basis of scientific methods, the public work in the combine is organized through high economic efficiency for our republic. That is why it is so important for the further performance improvement of our economy that all combines take their clues from the levels of the most advanced and always focus in their further development on raising the level of our productive forces and perfecting the socialist production relations.

Contribution to Supplying Our Population

Industrial growth has been and is a decisive condition for the progressive development of such important economic areas as agriculture and the construction industry and for further extending the infrastructure of society.

GDR industry has to make the main contribution to supplying our population with consumer goods. Due to our citizens' high income level--the net income of our population rose by 48 percent from 1971 to 1979, the gross income of our workers and employees came to an average of M 1,016 per month--, there is a rapid increase in the demand for industrial commodities, especially for high-grade products. Producing them, however, has for a long time no longer been the preserve of the traditional consumer goods industries, it has increasingly become one of the most important tasks for the industry that makes the means of production.

Profound changes have taken place in the last 35 years in our social structure, in the relations between the classes and strata, which were caused to a large degree by the spread of socialist production relations in industry.

The basic relocation of industry has a lot to do with the fact that the economic and social backwardness in the formerly distressed areas in Mecklenburg, the hilly districts and Eichsfeld was done away with for once and for all and the northern bezirke could be more strongly industrialized. An integral part and the engine for this quantitative and qualitative growth process of our industry has been and is the workers class, growing in numbers and increasingly excelling, while more strongly concentrated in large-scale enterprises, by its desire for a high level of education and skills. The number of industrial workers and employees rose by 153 percent between 1950 and 1978, and the percentage of working women rose from 37.7 in 1955 to 43.8 in 1978. When our republic was founded, only about one out of every four industrial workers had specialized training, in 1980 the percentage will have climbed to 66. In 1978, one out of every 10 industrial workers had a college or technical school degree.

The facts and processes presented underscore the significant share industry has in the further shaping of our developed socialist society and in securing and further elevating the people's material and cultural standard of living based on a high rate of development in socialist production, improved efficiency, scientific-technical progress and growth of labor productivity.

FOOTNOTES

1. Karl Marx, "Das Kapital," Vol 1, Marx/Engels, "Werke" (Works), Vol 23, Dietz publishing house, Berlin, 1962, p 511.
2. "Programm der Sozialistischen Einheitspartei Deutschlands" (SED Program), Dietz publishing house, Berlin, 1976, p 28.
3. See also Willi Kunz, "Effectiveness and Socialist Economic Integration" in the present issue.
4. "Geschichte der Sozialistischen Einheitspartei Deutschlands. Abriss" (SED History--Outline), Dietz publishing house, Berlin, 1978, p 149.
5. Comrade Erich Honecker, "Aus dem Bericht des Politbueros an die 11. Tagung des ZK der SED" (From the Politburo Report to the 11th SED Central Committee Plenum), Dietz publishing house, Berlin, 1979, p 40.
6. Cf. Guenter Mittag, "Mit der Kraft der Kombinate fuer weiteren hohen Leistungsanstieg" (Through the Strength of the Combines for Continued High Performance Improvements), Dietz publishing house, Berlin, 1980.
7. Karl Marx, "Principles of the Critique of Political Economy," Dietz publishing house, Berlin, 1953, p 592.
8. Cf. Guenter Mittag, "Mit politischem Kampfgeist fuer eine hoehere Effektivitaet, 11. Tagung des ZK der SED" (With Political Fighting Spirit for Higher Effectiveness--11th SED Central Committee Plenum), Dietz publishing house, Berlin, 1979, p 131 f.

9. Cf. Helmut Koziolek, "High Net Income for the Benefit of Our Society,"
EINHEIT, No 9/10, 1979, pp 1018 ff.
10. Karl Marx, "Das Kapital," loc. cit., p 606.

5885

CSO: 2300

GERMAN DEMOCRATIC REPUBLIC

EFFECTS OF GDR-USSR ECONOMIC PLAN COORDINATION DISCUSSED

West German Commentary

Bonn IWE-TAGESDIENST in German No 68, 2 May 80 p 2

[Report from Berlin: "SED Pushing for CEMA Projects of Particular Benefit for the GDR." A translation of the East Berlin EINHEIT article cited below follows this commentary]

[Text] The SED organ EINHEIT (No 5, May 1980) urged that the cooperation between the GDR and the partner countries in CEMA, the eastern economic community, concentrate above all on projects of particular benefit for the GDR. The paper points out that the GDR is giving special support to specialization and cooperation measures in science, technology and production, which have led to significant increases in the GDR economy's efficiency as the corner-stone of further increases in performance. According to EINHEIT, it will be necessary in regard to the proposals concerning acceleration of scientific-technological progress and attainment of greater concentration effects by means of integration measures to keep accurate and verifiable records of the benefit realized; furthermore, the integration measures within CEMA should be used to a much greater extent to advance the innovation processes in science and technology so as to improve product quality and to produce results equal to the highest international level. According to EINHEIT, the GDR could assess its own level by means of an infallible indicator--the profitability of exports.

GDR Economist's Discussion

East Berlin EINHEIT in German Vol 35 No 5, May 80 signed to press 7 Apr 80 pp 507-514

[Article by Prof Dr Willi Kunz, economist, deputy director, Central Institute for Socialist Economic Management, SED Central Committee; chairman, Scientific Council for Problems of Socialist Economic Integration: "Effectiveness and Socialist Economic Integration." A translation of Professor Koziolk's article cited in footnote 10 below is published under the heading, "GDR's Role in Socialist Economic

Integration Detailed," in JPRS 75510, 16 Apr 80, No 1997 of this series, pp 92-100]

[Text] In the 1980's, the socialist economic integration will be assuming new dimensions. The objective integration processes are a basic precondition for intensification, greater efficiency and improved satisfaction of demand in the CEMA countries. What forms of cooperation--especially between the GDR and the USSR--can meet these demands? What are the requirements concerning the management of the integration processes, which must be met in order successfully to implement the program for specialization and cooperation between the GDR and the USSR?

In the 1980's, the socialist economic integration will be assuming larger dimensions. The new processes, which are developing in the CEMA countries in the course of the increasing nationalization and internationalization of work and production require on the part of the managers and planners a consistent orientation toward socialist economic integration as a basic precondition for growth and intensification. In this respect, the objective is to improve the efficiency of socially necessary production and better to meet demand by means of integration measures. On the basis of its social development, especially the development in the economic sector and in science and technology, the GDR--an integral constituent of the community of socialist states--actively takes part in the development of socialist economic integration. The GDR helps to insure that "in this field as well, maximum efficiency and quality become the standard of work."¹

Lenin's Foresight--Clear Guidance

The objective necessity of socialist economic integration, which derives from the drive for further socialization of work and production under socialist conditions and beyond national boundaries, was recognized by Marx and Engels and above all by Lenin. With scientific foresight, they outlined the internationalization of economic life. The socialist economic integration results from socialism as a mode of production. It is due to "the economic advantage and the instinct and awareness of internationalism and democratism"² that the workers of the socialist countries consider the rapprochement of the socialist nations as a task and inherent law of the development of the communist social system.

Lenin proceeded from two basic findings of Marx and Engels. Firstly: "With the development of the bourgeoisie and as a result of free trade, of the world market, of the uniformity of industrial production and of the resultant living conditions, the contrasts between the nations and their national isolation are diminishing."³ And secondly: It is only with the elimination of the antagonistic class contrasts "within the individual nation that the hostility among the nations will cease."⁴ Lenin expanded this prediction. He elaborated the "establishment of a uniform, integrated world economy to be controlled by the proletariat of all nations in accordance

with a joint plan,"⁵ the "rapprochement and fusion of all nations in the socialist society,"⁶ "the total elimination of national boundaries"⁷ as inherent laws of the new social system. However, Lenin made it perfectly clear that this was a historical process, that the road to be traveled would be very long and that "national and political differences...will continue to exist for a very long time even after the worldwide establishment of the dictatorship of the proletariat."⁸

Expansion of Economic Capacities

On the basis of the complex program of socialist economic integration, the CEMA countries have begun the process of economic integration. This opens up qualitatively new possibilities in regard to expansion of the community's economic capacities and at the same time, it greatly helps to intensify the friendly relations among our states and peoples.⁹ The continuous consolidation of the community of socialist states is dependent on the productive capacity of the participant economies. Aside from the individual country's own efforts, the productive capacity is to a large extent based on the results obtained through integration in the CEMA countries' international division of labor.

As early as the 1970's, important steps were taken toward the gradual and systematic integration of the individual national economies and toward increasing the concentration and efficiency of production. To a large extent, the progress made in the CEMA countries in the last few years resulted from the CEMA complex program and a great many tasks were accomplished jointly.

Thus the cooperation in the raw materials and fuel sector--above all the steady supplies from the USSR--and the development of scientific cooperation and of production specialization and cooperation in key sectors of the manufacturing industry, especially in machine building, resulted in a high level of economic integration. The accumulation efforts concerning mutually agreed-upon specialization projects and the shared investments in the development of raw material sources and fuel deposits were extensively coordinated. This was accompanied by an increase in foreign trade activity among the CEMA countries, the rate of which had for years been much higher than the likewise rapid and steady development of industrial production and of the national income. The high degree of economic integration attained between the GDR and the other CEMA member states, above all the USSR, is evidenced by the fact that at present approximately one-third of the national working time productively expended in the GDR is used for the production of export goods. Approximately two-thirds of these goods are exported to CEMA countries.

In spite of the fact that foreign trade conditions have generally become more complex, the CEMA countries have been able to increase their share of world industrial output from 18 percent at the beginning of the 1950's to approximately one-third and their share of the world national income from

15 to approximately 25 percent. Thus over an extended period of time, they have been showing a steady and much higher rate of economic growth than the majority of capitalist countries. This performance increase in all of the CEMA countries and the increasing integration of their national economies form the material foundation for the consolidation of socialism, the implementation of far-reaching sociopolitical measures and the assimilation of the peoples of the socialist states. In the 1970's in particular, further progress was made in regard to the gradual assimilation of the CEMA countries' levels of economic development; these advances were based on the continuous increases in labor productivity, on the steadily rising level of science, technology and production and on the increasing material and cultural affluence of the nations. Measured against the per capita national income produced, the differences in economic development continued to decrease.

Socialist Economic Integration and Intensification

On account of the developmental level of the CEMA countries' material-technological basis, their scientific-technological capacities and the degree of economic integration, the conditions are favorable for fully exploiting the possibilities offered by socioeconomic integration in regard to economic growth and intensification and for activating them for the further rapid development of each CEMA country in the 1980's. The concomitant consolidation of socialism is directly related to the member states' productive capacity and increased performance and to the readiness of each member further to intensify the scientific-technological and economic cooperation in key sectors. The activation of the qualitative intensification factors--acceleration of scientific-technological progress and its highly efficient utilization in production, modernization of production through socialist rationalization, the most economical use of raw materials and fuel, introduction of more productive technologies in the production process--is increasingly influenced by the way in which the economic intensification measures in the CEMA countries are furthered by the socialist economic integration.¹⁰

The integration of the CEMA countries in key scientific-technological and economic areas is an increasingly important source of impulses for the attainment of advanced positions, for producing superior results in science, technology and production and for improving labor productivity and efficiency. The further the socialist economic integration advances and the greater its impact on the economic development of the nations, the greater is the effect of efficient cooperation on the participants.

In view of the interaction between intensification and socialist economic integration, it is of great importance in regard to improving the GDR's economic performance to make greater use of the advantages of socialist economic integration for intensified reproduction. The program of production specialization and cooperation between the GDR and the USSR up to 1990 and the long-term programs for cooperation within CEMA enable us to pursue

a cooperative strategy that makes allowance for the possibilities and requirements of the 1980's.¹¹ On the basis of these programs, it is necessary above all to accomplish the following tasks:

- Systematic utilization of the international socialist division of labor and cooperation so as further to improve the efficiency of economic management and the production structure;
- gradual development of an integrated fuel and energy sector, in order to meet as efficiently as possible the demand for energy sources and fuel--inclusive of increased utilization of domestic energy sources and of nuclear energy;
- coordinated development of machine building, of the consumer goods industry and of other key sectors of the national economy and above all of economically revolutionary sectors such as microelectronics and robot technology;
- further intensification of the specialization and cooperation in science and technology so as to speed up the concentration efforts in these fields in the countries involved.

The implementation of these programs activates complex impulses conducive to the development of the GDR economy. This goes for the effectiveness of the domestic reproduction processes and for the interaction between the state's reorganization policy and similar or coordinated measures in the partner countries. It is primarily through this policy that the socialist state as the sovereign representative of the economic interests and resources of the respective country performs its economic-organizational function in the integration processes and foreign trade relations. Thus the socialist economic integration entails increasing demands concerning its systematic control through high-level cooperation in the field of planning. Plan coordination and balancing of the proportions, structures and measures agreed upon by the CEMA countries are one of the most important prerequisites for expanded socialist reproduction and for its stability and efficiency within CEMA and in each individual country. On account of the increased dimensions and complexity of the tasks within the community of CEMA countries, the cooperation in the field of planning is being extended to new economic sectors and new levels of economic management.

New Dimensions of Concerted Action

The collective elaboration of the CEMA countries' joint strategy of cooperation in the economically most important sectors, which is based on long-term CEMA programs, has been concluded for the period up to 1990. As a result of the program for production specialization and cooperation between the GDR and the Soviet Union up to 1990, a new level has been reached in the relations between the GDR and the USSR.¹²

On the basis of these programs and with the object of implementing them, the economic plans of the GDR and the USSR have been coordinated for the period from 1981 to 1985. In this regard, the primary objective is systematically to utilize the socialist economic integration for intensification measures on a larger scale. What is this reflected in?

1. /The socialist economic integration increases the net efficiency of socially necessary work through the increased dimensions that it opens up to scientific-technological progress/ [passage in slantlines printed in italics]. V. I. Lenin pointed out already in his time that communism "cannot be established without knowledge, technology and culture."¹³ He placed emphasis on the task of the victorious working class "to make the historically absolutely necessary store of culture, knowledge and technology...a tool of socialism."¹⁴ Today this is possible only through constant comparison with the international competition and through strict orientation toward our own top-level performance. Through new methods and forms of scientific cooperation transcending national boundaries, we must consolidate advanced positions in science and technology, gain the lead in new fields and improve efficiency. The cooperation aimed at the joint accomplishment of research and development tasks establishes close links between the scientific capacities of the nations and leads to direct interaction between the leading research workers and to joint utilization of scientific-technological experience and advances. In this regard, we can fall back on positive experience and good results in the scientific-technological cooperation, above all the cooperation with the USSR. While this course is consistently being continued, the scientific cooperation among the CEMA countries will undergo further structural changes in the 1980's. In this respect, the primary objective is to increase the share of joint and specialized research in the progressive dynamic fields of scientific-technological progress--microelectronics, robot technology, scientific-technological instrument building, etc.--and to solve the problems concerning the optimal organization of the entire CEMA reproduction chain for these product groups, but also for other products that are part of joint research and development programs. Such concentration of effort in scientific-technological cooperation will trigger significant impulses enabling us--on the basis of innovation processes--on a still larger scale to reorganize and modernize production processes in selected fields of energy and raw materials management, of machine and instrument building and of the chemical and ancillary industries and to renew product assortments.

2. /One of the significant effects of socialist economic integration on the intensification of the reproduction process is the fact that through the joint efforts expended, the CEMA economies' supply of raw materials, fuel and energy is assured/ [passage in slantlines printed in italics]. The long-term and stable provision of the CEMA countries with raw materials, fuel and energy and the most efficient utilization of these materials has become a crucial problem in regard to stable CEMA integration in general.

As early as the 1970's, the CEMA countries satisfied their import needs of a number of commodities largely through intra-bloc trade: pit coal, over 90 percent; oil, over 75 percent; iron ore, 70 percent; pig iron, 90 percent; rolling-mill products, over 60 percent; copper, 80 percent; and cotton, two-thirds. Most of the CEMA countries have been able year after year to increase the imports from the USSR of important raw materials and energy sources such as oil and natural gas. After all, one of the advantages of the socialist system is the fact that a developed industrialized country such as the USSR--while intensifying the specialization and cooperation in the manufacturing branches, above all in machine building, electrical engineering/electronics and others--exports on a large scale raw materials and fuel to the partner countries, including the GDR.

Raw Material and Fuel Shipments From the USSR to the GDR

	1976-1980	1981-1985 ¹⁵
Oil	88.2 million tons	95.0 million tons
Natural gas	21.6 billion cubic meters	32.5 billion cubic meters
Pit coal	21.0 million tons	21.0 million tons
Rolled steel	15.9 million tons	16.0 million tons
Cotton	425,000 tons	440,000 tons

These large-scale shipments of the Soviet Union meet most of our requirements up to 1985. "No capitalist industrialized country can boast such good prospects in this crucial field, no matter how much it is prepared to pay for these valuable raw materials."¹⁶

Due to the geographic distribution of the natural resources, the GDR--in order to be able to meet its raw material and energy requirements--has to contribute to the development of the natural resources in the USSR and at the same time, it must intensify its efforts toward utilization of its own raw material and fuel resources. The fact that the expenditures on raw materials per unit of output are continuously rising, i.e. that the price of both the imported and the domestic raw materials and fuels will continue sharply to increase in the 1980's, necessitates increasingly strict economies regarding the use of these materials. Consistent energy and material economy gives rise to problems concerning energy and material savings in traditional production processes as well as problems concerning a gradual structural changeover to less energy- and material-intensive products. This also calls for solutions that would make it possible to obtain a high national income with minimum input. A true productivity increase exists if--with specific input declining--the commodity output volume increases, i.e. if through increased processing intensity the available raw materials and fuels are made to yield a greater volume of finished products and a higher national income within a demand- and use value-oriented structural framework. The corner-stone of such a high level of energy and material economy is the scientific-technological work. It is in this field that crucial decisions are made in regard to reduction of input, increased

efficiency, improved input-output ratio, material- and energy-saving designs and processes.

The interrelationship between intensified reproduction and an integrated raw materials and fuel management of the CEMA countries in the 1980's must be activated above all in three directions: Firstly, it will be possible through joint complex planning to find the most effective solutions for the participants (including investment sharing), without there being any dependence on the location of any individual country. Secondly, the increased efforts expended by the countries on the utilization of their own raw material and fuel resources will to a large extent be coordinated and there will be a corresponding exchange of experience in the interest of efficient production. Finally, the scientific-technological cooperation among the CEMA countries will be increasingly oriented toward the development of material- and energy-saving technologies and consumer goods and toward the speedy introduction of new materials and energy sources (nuclear power).

3. /An important effect of socialist economic integration on intensification derives from the intensified production specialization and cooperation on the international level/ (passage in slantlines printed in italics). It allows a greater measure of production concentration in the participant countries and--through increased output quantities and joint rationalization measures--leads to improved satisfaction of industrial and individual demand and to increased efficiency of the reproduction process in all participant countries. In the 1970's, it was in machine building in particular that the international specialization and cooperation made significant progress. Year after year, the share of specialized products has been increasing. On the basis of multi- and bilateral agreements, the division of labor has been developed and consolidated along well-defined lines. This development greatly contributed to the dynamic progress made by the machine building and electrical/electronic industries in the CEMA countries.

Thanks to the international specialization and cooperation, the productive capacities of the GDR are now strongly integrated with those of the other CEMA countries. This goes for the energy sector, the chemical industry, the chemical engineering sector, important areas in the machine building industry (especially machine tool construction), the electrical engineering/electronics sector (microelectronics in particular), the construction sector and the building material industry. In 1978, the share of specialized and cooperation-based products of total GDR exports of machines and equipment to the CEMA countries amounted to approximately 40 percent; as regards exports to the USSR, the share was considerably larger. The production plans of many combines, industrial associations and enterprises of the various countries are to a large extent coordinated. On the basis of the plan coordination, contractual arrangements have been made in regard to cooperation aimed at joint, time-saving accomplishment of important research and production tasks.

The arrangements made in regard to plan coordination between the GDR and the USSR for the period from 1981 to 1985 show the increasing advances--based on the program for specialization and cooperation between the GDR and the USSR--in the field of international specialization and cooperation between our countries in science, technology and production. For these 5 years, the two countries concluded an agreement concerning reciprocal commodity shipments in the amount of 48 billion rubles and M 240 billion (in CEMA prices of 1979). This is a 30-percent increase in commodity trade over the current 5-year plan period. Thus we have established a solid foundation for our economy's continued stability and dynamism. "Our combines and enterprises thus are assured good long-term production and sales prospects."¹⁷ According to the plan coordination for the period from 1981 to 1985, the national economies of the GDR and the USSR will in the further intensification of economic integration concentrate more strongly on the dynamic sectors, i.e. on those sectors that are among the driving forces behind scientific-technological and economic progress and that significantly improve the economy's structure and efficiency and markedly stimulate its growth.

In regard to countries such as the GDR, the experience gained in the last few years indicates a strong trend within CEMA toward specialization and cooperation in regard to finished products of the manufacturing industry, above all machines and complete installations. In this field, the number of specialization agreements and cooperation contracts concluded among the CEMA countries has been rapidly increasing; as a result, a higher level of efficiency has been reached by all participants. This is of increasing importance in regard to commodity trade between the GDR and the USSR and other CEMA countries. Evidence of this is the fact that the share of commodity trade transacted within the manufacturing industry shows the highest rate of growth and also the greatest volume. Thus, from 1975 to 1978 the merchandise traffic between the GDR and the USSR increased by 9.6 percent per year, whereas the GDR imports of machines and equipment from the USSR show a much higher rate of growth.

This development includes efficient specialization and cooperation in regard to machinery parts, structural elements, assemblies and component parts, with the improved standardization of the assemblies and components in machine building assuming increasing importance. In regard to both the finished products and the assemblies, the crucial factors are their scientific-technological level of quality, their service characteristics, and the production costs and market value.

As far the implementation of the basic conception regarding the GDR's economic expansion, for which the socialist economic integration is establishing the preconditions required, it is imperative that the theoretical foundations of our policy, which is oriented toward expanding the productive capacity of the GDR economy, be everywhere correctly understood.¹⁸ All management decisions in the combines and enterprises must be governed by the realization that the Party's economic and social policy is based on

the knowledge of the effects of the economic laws of socialism and on their conscious utilization. This also fully applies to the socialist economic integration. It is toward this that the economic plans and objectives are oriented. This means:

--/It is necessary to realize and recognize that the correct integration of our national economy in this process is an objective necessity in regard to the further development of advanced socialism in the GDR/ [passage in slantlines printed in italics]. "The program for production specialization and cooperation between the GDR and the USSR up to 1990 again demonstrates to the whole world that the process of economic assimilation of the GDR and the USSR is progressing and that it is irreversible."¹⁹

--/The socialist economic integration must be systematically developed/ [passage in slantlines printed in italics]. The coordination of planning is the principal method applied within CEMA. The specific CEMA programs and the program for specialization and cooperation with the USSR must be safeguarded through plan coordination, pertinent government agreements and other arrangements and the target figures in the individual countries should be interrelated. In this respect, we must realize that outside the plan it will be impossible to implement integration measures in the dimensions of the 1980's.

--/Emphasis should be placed on those specialization and cooperation measures in science, technology and production, which lead to significant improvement of the GDR economy's efficiency as the corner-stone of further steady performance increases/ [passage in slantlines printed in italics]. In this connection, it will also be necessary in regard to the proposals concerning acceleration of scientific-technological progress and attainment of greater concentration effects by means of integration measures to keep accurate and verifiable records of the benefit realized.

--/We must make greater use of all integration possibilities so as to be able through concerted action on the international level to advance the innovation processes in science and technology in a way conducive to the improvement of production quality and to the attainment of internationally outstanding results/ [passage in slantlines printed in italics]. This goes for technologies as well as for consumer goods, for finished products and for construction assemblies--especially in those economic sectors that to a large extent determine the growth rate in the 1980's. In this regard, the profitability of exports is an infallible indicator of our own level.

In regard to improving the workers' motivation concerning the accomplishment of the integration tasks that are of crucial importance for the further steady and dynamic development of the GDR economy, the party organizations and the state directors of the GDR combines and enterprises bear great responsibility. The industrial combines of the GDR embody the organic standards concerning the production and marketing of the goods

produced; they are responsible for the products' scientific-technological quality and service characteristics, for the production costs, for close cooperation between the research and development sector and the production sector, for the key supplies, the systematic rationalization and the well-organized marketing of the products at home and abroad. Thus they are the most important partners in the preparation and accomplishment of the integration tasks.

Already there are many instances of successful participation on the part of combines and large-scale enterprises in international cooperative planning involving partners in other CEMA countries. It is very significant in this regard that in participating in the planning of international specialization and cooperation these combines and enterprises submit conceptions of their own. The experience gained by large-scale industrial combines of the GDR shows that long-term international cooperation on planning is an important prerequisite for controlling through management and planning the socialist economic integration in the sector concerned.

The further improvement of the systematic organization of the internationalization of labor and production between the GDR and the USSR and other CEMA countries with the object of tapping additional productivity and growth reserves for the GDR economy and the CEMA community as a whole and on this basis more fully satisfying the material and cultural needs of the workers is an important contribution by our country to the further advancement of the process of rapprochement among the socialist nations in the 1980's and to further success in the economic competition with capitalism.

FOOTNOTES

1. Erich Honecker, "Die naechsten Aufgaben der Partei bei der weiteren Durchfuehrung der Beschluesse des IX. Parteitages der SED" [The Next Tasks of the Party in the Further Implementation of the Resolutions of the Ninth SED Congress], Berlin, 1980, p 60.
2. W. I. Lenin, "Observations on a Caricature of Marxism and on the 'Imperialist Economism,'" in: "Werke" [Complete Works], Vol 23, Berlin, 1968, p 62.
3. Karl Marx/Friedrich Engels, "Manifesto of the Communist Party," in: "Werke" [Complete Works], Vol 4, Berlin, 1959, p 479.
4. Ibid.
5. W. I. Lenin, "Original Draft of the Theses on the National and on the Colonial Question," in: "Werke" [Complete Works], Vol 31, Berlin, 1959, p 135.
6. W. I. Lenin, "Observations on a Caricature....," op cit., p 62.

7. W. I. Lenin, "Letter to the Workers and Peasants of the Ukraine on the Occasion of the Victories Over Denikin," in: "Werke" [Complete Works], Vol 30, Berlin, 1961, p 284.
8. W. I. Lenin, "'Left Radicalism,' the Growing Pains of Communism," in: "Werke" [Complete Works], Vol 31, p 79.
9. See "Bericht des Zentralkomitees der Sozialistischen Einheitspartei Deutschlands an den IX. Parteitag der SED, Berichterstatter: Genosse Erich Honecker" [Report of the SED Central Committee to the Ninth SED Congress, Delivered by Comrade Erich Honecker], Berlin, 1976, p 14.
10. See Helmut Koziol, "Cooperation in the Fraternal Alliance GDR-USSR," EINHEIT, No 2, 1980, pp 144 ff.
11. See Erich Honecker, "Die naechsten Aufgaben...", op. cit., p 60.
12. Ibid.
13. W. I. Lenin, "Speech of the First All-Russian Conference on Party Work in the Countryside," in: "Werke" [Complete Works], Vol 30, Berlin, 1961, p 132.
14. W. I. Lenin, "Speech of the First Congress of Economic Soviets," in: "Werke" [Complete Works], Vol 27, Berlin, 1960, p 408.
15. NEUES DEUTSCHLAND, 6 February 1980.
16. Erich Honecker, "Die naechsten Aufgaben...", op. cit., p 32.
17. Ibid., p 60.
18. Ibid., p 52.
19. Guenter Mittag, "Mit politischem Kampfgeist fuer eine hoehere Effektivitaet, 11. Tagung des ZK der SED" [With Political Fighting Spirit for Increased Efficiency--11th Session of the SED Central Committee], Berlin, 1979, p 126.

8760

CSO: 2300

SURVEY ON FINANCIAL, ECONOMIC RESULTS PUBLISHED

Budapest FIGYELO in Hungarian No 29, 16 Jul 80 pp 1, 6

[Report by Laszlo Galik and Gabor Posch: "Financial and Economic Situation Report"]

[Text] Management's financial and economic situation is regularly examined by the Ministry of Finance's Main Directorate of Incomes. Thus we have the corrected 1979 balance data, the data service from the first quarter of 1980, the enterprise profit data reported for the second quarter of 1980, and the results of a survey of approximately 200 economic units. On the basis of these, the 1980 financial situation may be sketched. It is not free of contradictions.

The recent comparison of the corrected 1979 balance data shows that, as a result of the changes that have been introduced, the economic units (without farms, financial institutions and water management companies) produced about 29 percent less than what was shown in the 31 December 1979 balance sheets.

The various degrees of change created a significant change in branch profits.

The Initial Situation

Of the national economic branches, the construction industry had the largest decrease in output. As a result of the new prices, it has not even reached half the production shown in the 1979 balance. At the same time, production that constitutes the basis of accounting, has significantly increased in the branches of essential services. The situation in commerce is not unfavorable either, since the 13 percent decrease in domestic trade was balanced by a 5 percent increase in foreign trade--as calculated in the new prices.

In industry, production constituting the basis for accounting has decreased by 45 percent, which is more than the national average or the decrease on 1 January 1976. The loss in production came about through an extreme dispersion of industrial branch output:

--Production in the electric industry increased 4.5 times, while it stayed at the same level in metallurgy and the food industry;

--The amount of production decrease in the chemical and other industries is approximately the same as the industrial average, and less in the construction industry;

--The decrease in production in mining, the machine industry and the light industry was considerably greater than the industrial average.

Thus the branches that produce basic materials and energy became stronger, while the processing branches--with the exception of the food industry--became weaker.

As a consequence of the various degrees of changes in production, the production indexes of the industrial branches, relative to resources, came closer to one another. Thus, as a combined effect of the new prices and costs that were determined by comparing prices in foreign trade, the initial profit conditions of the individual industrial branches became more similar, while this redistribution, as far as the individual economic units are concerned, has a differentiating effect.

The new pricing of the 1979 domestic trade resulted in the national economy as a whole having an 8 percent increase in domestic producer prices as compared with the 1979 prices. Price changes in industry show an increase in initial prices that is greater than planned. The changes are pretty much the same as was forecast at the beginning of this year by the Central Bureau of Statistics. The trade index--in new prices--is 114 percent in industry; this is the highest in all national economic branches.

Within industry, the initial prices in the processing industrial branches (machine industry, light industry) decreased by 5-6 percent, while the prices in branches that produce basic materials and energy increased considerably (by 63 percent in mining, 24 percent in metallurgy, and 11 percent in the electric power industry). Although the industry's initial prices are higher than specified by the central organs, this is not reflected either in profits calculated in new prices, or, for the time being, in consumer prices. There are two factors that can clearly serve as an explanation.

First, the higher initial producer prices have not reached the consumer's level yet. This is because the various increases in producer prices are balanced by the consumption of the producers: the higher the profit an economic unit will bring as a result of higher prices, the lower the profit that will remain for another unit.

Second, the majority of economic units had fuzzy and inexact information on prices in the course of the price changes. It is thus probable that they adjusted the prices of their own products to the planned amount of sales and the costs to the highest expected prices. This is shown by the fact that in industry, for example, the new index of material expenses is 121, while that of stocks is 105. The contradiction between the higher-than-planned initial prices of materials and the relatively low new prices of production is most problematic in the machine industry and the light industry.

Profit Positions in the First Half of 1980

The production of the 2,820 enterprises and cooperatives that were required to supply data was the basis for clearing of accounts in 1980's first quarter and was, in its totality, the same as specified by the managements for tax purposes. The differences in the various economic branches and individual industrial branches are more significant. For example, profit in the first quarter was 114 percent higher in transportation and communication, 8 percent higher in trade, and 30 percent lower in the construction industry than was stipulated for the first quarter. Within industry, profits in mining and metallurgy are considerably higher (150 and 37 percent, respectively) than in January. On the other hand, the machine industry showed 28 percent, and the chemical industry 18 percent less profits in the first quarter. The construction industry had a small deficit instead of the planned profits.

Some signs indicate that the 1980 profits in certain economic branches are significantly different from the corrected 1979 profits. In those branches where the changes in prices and regulations decreased profits to a relatively great degree, both the actual gains in the first quarter of 1980 and those projected for the second quarter have increased dynamically. Thus the share of these branches in the output of the national economy has increased and has approached (and, in exceptional cases, even reached) the actual 1979 share before the price changes. This is true of industry as a whole but it is especially true of mining--including the National Oil and Gas Industry Trust--and of the light industry.

Rearrangement?

The phenomenon is not unequivocal. It can also refer to the grave mistakes in the correction (repricing) of the 1979 factual data. This is more probable. Less probably, it may be considered as a beginning of a profit-rearranging process. (This would be positive, on the other hand, for we would suspect, first of all, a rapid exploration of resources behind a rearrangement of profitability.)

The signs indicating the existence of the rearranging process, or the more serious problems of repricing are also manifest in the changes in domestic profitability of the industry and its individual branches. Although this index, because it lacks certain data, may be defined only approximately, it is still adequate for one to recognize certain tendencies.

Domestic Profitability in a Few Branches
of the Industry, in Percentage

	According to actual 1979 data	According to 1979 data in new prices	According to data in first quarter, 1980
Industry	5.7	5.5	7.2
Chemical Industry	8.1	3.8	8.3
Light Industry	8.9	5.2	11.5
Mining +	5.2	2.6	3.2
Electric Power Industry	1.6	5.7	2.7

+Together with the entire National Oil and Gas Industry Trust

As we have mentioned, the change in profitability is not connected with the change in the managements' capacity to produce profits. Much rather, it calls attention to the related problems connected with the price regulations, the repricing and the price mechanism. Thus the examination of the initial prices and the repricing of the 1979 factual data is justified and timely. However, we would like to avoid suggesting that the majority of the corrected 1979 data are false. We know from our survey of about 200 units that only half of them foresee an increase in 1980 of the corrected (repriced) 1979 output. This proportion is significantly lower than was indicated by last year's survey. The decrease in the number of enterprises and cooperatives that are planning a production increase indicates that conditions have become harder, and points toward selectivity.

A further characteristic of the condition that developed early this year is the extreme differentiation of the financial situation of the enterprises and cooperatives. This is illustrated by the fact that an increasing number of enterprises and cooperatives show increasing amounts of deficits, both in the first quarter of 1980 and as projected for the second quarter. This, however, is made questionable by a few circumstances:

--The economic units with deficits in certain periods come from various enterprise circles, which shows how difficult it is to evaluate the financial situation;

--According to the model "200," the number of units showing and reckoning with annual deficits is low, corresponding with recent trends in the national economy as a whole;

--Even from the aspect of money circulation and supply, it is not possible to conclude that, since the liquidity situation of the enterprises and cooperatives

is significantly more favorable than it was last year, the number of units with deficits will sharply increase.

Favorable Phenomena

A significantly higher higher number of the enterprises and cooperatives that were surveyed expect a decrease in production in 1980. It is also worth noting that the decisive relationship between quantitative changes in production and sales, and profits, became weaker. We may conclude from this that enterprise management is striving more and more for improvement in profitability. This has been noted, incidentally, in the analysis of the factors of the 1979 changes in gains.

The plans of exporting industrial enterprises and the data show that the favorable trends of recent years will continue in 1980. This is manifest in the fact that 80 percent of the enterprises which have nonruble exports expect an increase in exports, and two-thirds of those exporting to ruble markets also plan to increase their exports. The fact that 60 percent of the economic units that plan to increase their nonruble exports are planning an increase in exports which surpasses all sales, and that half of the enterprises have targets that are above the targets of the national economic plan, also reflect an export-oriented attitude.

Alongside the favorable trends, however, the view of quantity is still haunting. This is most apparent in the enterprises and cooperatives of the construction industry. A relatively high number of the smaller construction units that have been observed plan to increase production, although more of them expect to produce less than last year.

Among the 200 units there are no significant problems with regard to development funds. It seems that the enterprises and cooperatives have worked out their development plans more carefully than heretofore, keeping their resources more in view. At the same time the survey and analysis of 1980 profits indicate that development problems in 1981 will emerge in more enterprises than the 20-30 in 1980.

The degree of the planned wage increases at the representative enterprises and cooperatives is the same as planned for the national economy. As in recent years, however, the relationship between the changes in output and wage increases will continue to be loose. Certain economic units that are increasing their profits expect an increase in wages, while others are planning a higher wage increase despite significant decreases in profits. It also makes one think that, on the basis of the expected profits in the first 6 months, certain branches expect an overfulfillment of base profits that will guarantee for the enterprises above-average preferential wage increases for several years without any perceptible increases in efficiency. This makes it necessary again to thoroughly examine the base profit and wage increase indexes.

The fact that among the economic units which decrease their production and sales there is no conscious effort being made to decrease stocks and release the excess labor force is not to be considered a favorable phenomenon either. The lack of such an effort can lead to excessively slow movement of the labor force to the enterprises and cooperatives that are able to develop dynamically, and to a slowdown of changes in the production structure.

About a third of the observed units are planning to increase their initial prices in the course of the year, and thus the price factors play a significant role. The intentions to increase prices will probably result in certain cases in extra profit in addition to a balancing of costs.

This situation report, approached from several angles, may be summed up as follows: the attitude of the enterprises generally shows the effect of the price and regulating system that was modified in early 1980, but not all enterprises are adapting rapidly enough to the new situation.

9414

CSO: 2500

PROBLEMS IN ECONOMIC DEVELOPMENT POLICY EXAMINED

Budapest FIGYELO in Hungarian No 31, 30 Jul 80 p 3

[Article by Andras Vertes: "Dilemma or Forced Course?"]

[Text] Many economists feel that development policy is now in a forced situation because rational alternatives cannot be formulated for it. Since the chief economic policy task in the years ahead will continue to be to improve the external balance of the national economy the internal use of national income cannot increase or cannot increase substantially and so we cannot count on any real changes at the level of either consumption or investments. Development goals must be subordinated to improving the external balance. Finally--the argument frequently goes--this almost completely circumscribes the freedom of movement of development policy.

One cannot deny that the above line of thought is logical. It really seems that it is difficult to formulate development policy variants. But despite the fact that the "place" of investment is more or less given in the macro-economic processes there are several ways or methods of attaining the given economic policy goals. In this article I will only try to sketch possible alternatives in a few questions, and the most important consequences thereof, without attempting to analyze the advantages and disadvantages of the several decision variants.

Direct or Indirect

Improving the external balance of the national economy must be kept in mind when selecting investment goals--this is obvious. But one can ask whether developmental activity should be directed at this directly or whether there is an indirect method also. A direct improvement of the external balance would mean for development policy that, on the one hand, it must place in the foreground the development of activities with an export capability and, on the other hand, it must expand activities which replace import economically. This latter will require large investments in energetics and in primary material production.

But one can also imagine indirect methods of reducing our balance problems, possibly more effective methods. The essence of this is that development policy should be aimed not directly at activities affecting foreign economic processes (for example, the development of export potential in production) but rather it should approach the balance by way of decreasing or liquidating the internal contradictions of the national economy. It would appear that this development policy behavior involves less security and greater dangers than a direct development of export-import processes. But its effects would be substantial, however,--since it would extend to the entire national economy--and its results would be felt lastingly over the long range.

I have deliberately formulated the essence of the two types of development policy behavior in this extreme form. My goal is simply to show the differences, to demonstrate that there are alternatives which presume rational but contrary behaviors. Of course, it is natural for practical economic policy that these development policy paths cannot be realized in such pure forms; in practice one can only apply a mixture of them. The question is which should be the determining development policy method. Deciding this, however, goes beyond the frameworks of this article.

What are the most important internal contradictions of the Hungarian economy the liquidation (or reduction) of which would significantly affect our external balance situation? We would get as many answers to such a question as the number of economists we asked. But in my opinion one could detect unambiguously in recent years a few "areas of concentration." Let me mention three of these:

- a. our infrastructure has lagged behind our level of development;
- b. one can experience a sharp contradiction between the institutional system of the national economy and the commodity-money relationships which should be realized in the economy; and, finally,
- c. to some extent interdependent with the first two, significant disproportions have arisen between activities producing final products and the so-called background activities.

Obviously one could make a longer list of the internal tensions of the Hungarian national economy. But perhaps these three contradictions will suffice to illustrate the magnitude of the hypothesized development policy decision intended to considerably decrease these problems. In what follows I will analyze in detail only the problems coming up in connection with liquidating the backwardness of the infrastructure.

The Neglected Infrastructure

Scientific research called attention to the backwardness which could be long experienced in the infrastructural background as early as the 1960's.

As the historical analyses disclosed the forcing into the background of the development of our infrastructure began between the two world wars and this increased significantly further after 1945. In the wake of the warnings of the researchers but primarily in the wake of the ever increasing tensions which could be experienced in practice the share of the infrastructure in the investments of the national economy rose considerably in the first half of the 1970's (although it still lagged substantially behind the ratios which have developed in developed capitalist countries and behind our own needs). In the second half of the 1970's--with the growth of external balance problems--this process halted, the ratio of infrastructural investments did not change substantially and so the share of the infrastructure in the fixed assets of the national economy decreased further.

[Interpretation of graph: The distribution of the fixed assets of the national economy, in percent of gross value, developed as follows for the producing branches--industry, construction industry, agriculture and forestry--and the infrastructure--transportation and communications, trade, water management and the non-material branches. In 1970 the infrastructure share was 66.2 percent and the share of the producing branches was 33.8 percent. In 1979 the infrastructure share was 59.6 percent and the share of the producing branches was 40.4 percent.]

We experience the deficiencies of infrastructural services virtually every day. Just as a reminder, because they are so well known, let us think of the difficult housing situation, shopping and transportation difficulties, the overcrowded hospitals, the virtually permanent troubles with rail freight and the increasingly insupportable state of the telephone network. Neglecting the development of the infrastructure has a dual effect: on the one hand quantitative shortages come into being regularly (and in most cases they become permanent) while on the other hand the condition of the existing installations quickly deteriorates as a result of the great use and the necessary neglect of maintenance. It may appear that fixed asset efficiency of infrastructural areas is improving but in reality this reflects overburdening and a deterioration of the quality of services.

In the present economic situation is it possible for us to liquidate (or decrease) the infrastructural backwardness? According to the "traditional" answer it is not. This opinion is based on the remainder principle: Starting from the specific capital needs indexes of an earlier period (and presuming a certain improvement), what investments are needed for the proposed increase in export, the "absolutely necessary" energetics and primary materials industry developments and (at least) maintaining the level of processing activities--the rest "can go" to the infrastructure. Since the infrastructure is a capital demanding area the investment resources generated on the basis of the remainder principle are far from sufficient to make up the lag; indeed, frequently the gap increases between production and the infrastructural background. So the development of the infrastructure does not even keep up with the expansion of production.

The Remainder Principle Should Not Remain

Many studies--most recently, for example, an article by T. Ivan Berend in Issue No 1, 1980 of *HOVETEMI SZEMLE*--have pointed out that we must reckon with an increase in our economic difficulties if we continue to follow this remainder principle. According to this formulation the development of the infrastructural background is a precondition for the flexible reaction capability so important in the present world economic situation. But how can we free resources for this area under the present and expected investment constraints?

It is obvious that to the extent that we try to develop the capital demanding infrastructure relatively quickly we must invest elsewhere in areas which are less capital demanding and which promise to pay off relatively quickly. But, naturally, these investments will induce numerous developments in other branches (considering that our imports cannot expand to any large degree in the years ahead either). This development is justified only in those areas of a processing character which are not capital demanding in themselves and for which the same requirement applies to the induced, ripple effect investments. This means that we should consider those processing activities which are less energy and material demanding. Indeed, in the interest of a relative reduction of the infrastructural backwardness we might apply another requirement, that these processing activities require relatively little additional infrastructural background. These viewpoints might be considered not only in regard to developments but also in the case of reductions or phasing out.

Such a development policy would probably free enough investment resources--primarily to the detriment of energetics and primary materials industry areas--so that the backwardness of our infrastructure could be reduced. So even with the present investment constraints it is not impossible to begin liquidating the economic tension which has existed for decades.

In the article already mentioned T. Ivan Berend makes another proposal for the creation of development resources: The resources planned for coming years to increase popular consumption, an increase which is small in any case, might be better used to develop the consumption infrastructure because as a result of the ratio of consumption to accumulation, which is about 3 to 1, the regrouping of a consumption growth which is of a magnitude which can hardly be detected could constitute relatively significant additional investment resources. Without debating the justification of this idea I might add that it is my opinion that because of the many types of income automation and because of the growth in nominal wages which is indispensable for incentive, consumption can best be reduced only by increasing the consumers price level more than would be desired. So the practical realization of the proposal will run into no small difficulties.

On the other hand I think there is a foundation for the thinking according to which a worthy improvement in the condition of the consumption infrastructure would have an advantageous effect on public morale under the

conditions of a slow increase in the standard of living. At the present level of economic development these services become increasingly important factors in the standard of living. The populace regularly is forced to spend substantially more time than necessary waiting, standing in line or travelling. It is self-evident that this plays a role in the subjective judgment of the standard of living. Improving these conditions, even in the event of stagnating material consumption, could have a considerable effect.

Thinking in Variants

To a certain extent the development policy dilemma involving infrastructural or production expanding investments resembles that of the motorist who wants to increase the performance of his car by choosing between two possibilities: 1. he can replace or modernize the carburetor and ignition system, which are working badly and hold back the proper operation of the engine; or, 2. he can install a larger engine in his car, in which case it also will be capable of achieving a performance smaller than expected, because of the obsolete supplementary equipment.

Thus, in my opinion, a realistic development policy will concentrate on solving the internal economic contradictions. I have illustrated this--naturally only very sketchily--with the example of the infrastructure. It is much less certain what effect such a development policy might have on the external balance situation. But--in my opinion--it cannot be disputed that over the long range reducing the internal economic tensions would improve our external economic position. There is little experience, however, concerning the time delay with which this would take place. Nor do we yet know sufficiently with what intensity an improvement in the internal balance will affect the external balance.

Finally--as I have already indicated--it could not be my goal to decide which development policy path could be realized most advantageously. I only tried to refute that position which rejects the preparation of development policy variants by citing our otherwise real economic problems, using them as a pretext.

8944

CSO: 1500

HUNGARY

SITUATION OF CONSUMER GOODS SUPPLY DESCRIBED

Budapest HETI VILAGGAZDASAG in Hungarian No 29, 19 Jul 80 pp 4-5

[Article by Peter Toke: "Domestic Trade Situation Report: Spotlight on Selection"]

[Text] What are we buying in the stores? What is difficult to find? Purchases have declined since the end of last year. On the whole, the balance of supply and demand has been restored. The structure of consumption is changing noticeably: saving has become more than just a slogan.

Changes in supply and prices affect everyone. It is always unpleasant to hear that something is not available, or that only one brand is on sale. Was there any progress in this area? What does the recently completed semiannual report on domestic trade tell us?

"The half year we have just concluded was characterized by some contradictions," said Gabor Lacza, head of the Information Department of the Ministry of Domestic Trade. After the buying fever between October and the end of December of last year, trade enterprises began the year with rather low inventories in January and February. Television sets, radios, record players, household appliances, many types of furniture and even certain articles of clothing were frequently not available. Industrial enterprises adopted a wait-and-see attitude; their deliveries were irregular and erratic. Yet, demand remained high through February. Supplies of clothing were a problem. This was a result of lower prices for suits, ready-made clothing, drapery and knitwear. This increased demand for such goods, despite the lack of selection and opportunities for replenishing stocks. In some periods the shops and department stores were drawing on the reserve stocks of wholesalers. Only shoe supplies were free from interruption.

Some industrial goods have become less expensive, while others had their price increased. This had hardly any impact on increased demand. Stores were emptied of color television sets, even defective ones. Many people bought consumer durables only because they were afraid of future shortages.

The end result of this buying spree was a real shortage of some goods. At the same time, food supplies remained adequate throughout. The stores had enough meat and poultry. Only fish, some frozen foods and canned fruits were temporarily in short supply. The situation gradually improved from March onwards, but substantial changes had to wait until the second quarter. Purchasing opportunities improved, as did the deliveries of producer enterprises. Stocks could be expanded and selection increased.

The June situation is characterized by a slower rate of purchases and a generally healthy balance of supply and demand. Food supplies remained satisfactory. Mean consumption declined and surpluses occurred in some areas. Supplies of hothouse fruits and vegetables were rather low. Fruit and vegetable prices were 10 to 40 percent above last year's levels. There were significant improvements in the supply of clothing, although there are still deficiencies in selection and some sizes are in short supply. For example, there are shortages in light summer suits, brand-name jeans and some cotton goods. The hosiery situation is well known: prices are 20 to 30 percent lower although stocks were insufficient. Men's socks became a hard-to-get item, as did pantyhose. With the approval of the ministry the shortage will be eliminated via unscheduled imports.

The most significant change occurred in furniture supplies. Supplies of many products are excessive. Stores are sufficiently stocked. The old system of waiting lists has been eliminated almost everywhere. The only items in short supply are some modular furniture parts and certain types of cabinets. Unfortunately there has been a surprising decline in demand.

In the area of mechanical goods there are still not enough vacuum cleaners. Until domestic production is started up again we intend to import them. Supplies of black-and-white television sets and radios are better. There are sufficient quantities of refrigerators although some large-size models are difficult to find. Domestic and imported automatic washing machines, sewing machines, dryers and water heaters are available once again, although not everywhere. At the same time, the selection in tape recorders, portable radios and better-quality telecommunications gear is still unsatisfactory. Color television sets are still in high demand. There is a great deal of interest in the color television sets with in-line picture tube made by Orion and Videoton.

Demand for construction materials is gradually increasing. This may lead to some problems in the future. There are sufficient stocks of bricks. Supplies of hardwood floor planks, doors and windows improved. Reinforced concrete beams and lumber are in short supply. On the other hand, there has been a welcome improvement in plumbing supplies, tiles and bathroom furnishings.

The ministry report also evaluates the situation of hotels and restaurants. Turnover has declined: there has been only a 5.9 percent increase in

turnover value relative to the first half of last year. This means a quantitative reduction in view of the higher prices. Food consumption declined, but prepaid meal tickets, group meals and liquor sales increased. Many restaurants did not reach planned receipt levels as a result of the scarcity of customers (in some locations the number of waiters quitting their jobs went up). Other places were able to increase their turnover significantly by various means, e.g., noon specials, a selection of inexpensive dishes, or 10- to 30-percent price reductions. The question arises: what should we do with money-losing restaurants deserted by their customers? Several solutions come up: close them, consolidate them, lease them to self-employed operators or turn them into privately owned restaurants. The trouble is that money-losing restaurants are likely to be large and employ more than two or three people.

The most significant increase relative to the first half of last year was in food sold in stores (up by 14.4 percent). The rise in industrial article sales was 11 percent and in clothing sales 6.1 percent. The overall growth in domestic trade turnover until 1 July was 10.7 percent, calculated at current prices; this is 1.4 percent above the plan. In the interest of objectivity we must note that the increase, when calculated at the prices of the first half of last year, does not reach the level of the same period of last year. The authorities are well aware of this: it is no accident that the ministry calculated only 1 percent growth in turnover at constant prices during this year.

Prospects for the second half of the year are better. Inventories are adequate. We expect further domestic and import deliveries. Therefore, we will be able to preserve the favorable situation of June. In fact, further improvements in supplies may be possible in several areas. This is all the more necessary because the structure of consumption is undergoing noticeable changes. Increasing demand for less expensive goods is now evident. Savings are becoming more than a slogan and are turning into a reality which is knocking at the door.

9164

CSO: 2500

ALTERNATIVE TECHNOLOGY EXPLOITATION POSSIBILITIES INDICATED

[Editorial Report] Warsaw RYNKI ZAGRANICZNE in Polish No 97, on 12 August 1980, page 1, discusses alternative technology in an article by Wacława Kulbacka, entitled: "'Alternative Trend' of World Technology."

Following a short, comprehensive review of the topic, the author concludes with its significance for Poland: "It seems that in our country there are also possibilities for interest in the development of alternative technology cooperation with the Third World states. This is supported, in addition, by our not yet completely forgotten artisan and handicraft traditions, as well as the skills already acquired in the area of large world technology, which permit these traditions to be exploited creatively and skillfully."

CSO: 260

DEPUTY CHEMICAL MINISTER REVIEWS PROGRESS OF 1965-1980 ERA

Bucharest FLACARA in Romanian 24 Jul 80 pp 1, 6

[Interview with Iustin Rogoz, deputy minister of the chemical industry, by Dumitru Graur: "The Exceptional Fruitfulness, the Maturation, the Accomplishments of the Romanian Chemical Industry"; date and place not given]

[Text] [Question] Comrade Minister, we all know today how fruitful the past 15 years, from the 9th party congress to now, have been for the life of the country. Practically a new era in our history opened up then, in 1965, with Romania stepping decisively onto the path of multilateral development, of rapid industrialization and of continual growth of its economic power. In this context, a special destiny was reserved for the chemical industry, whose engagement in the national economic system, as a supplier of raw material for nearly all the branches and subbranches of industry, determined its immense development. In fact, what has happened in the past 15 years in Romanian chemistry?

[Answer] Very many things have happened, all nonetheless leading to unprecedented development of industry. Certainly, with it being a peak industry of the national economy, rates of development far higher than those in other industrial branches have been asked of chemistry. Overall, while national industry has grown 5.5 times between 1965 and 1980, the chemical industry has grown 8.1 times in the same period of a decade and a half! This was possible only through considerable efforts by all, by the whole country even, and as a result of the bold thought, the vitality and the mobilizing force that Comrade Nicolae Ceausescu, the secretary general of the RCP, has continually displayed. Beyond doubt, our chemical industry had a certain development and enough tradition 15 years ago. "We are taking a long and hard path!" Comrade Nicolae Ceausescu said right from the start, and today his words have been completely backed up by deeds, leading both to the development that we mentioned and especially to a true maturation of our chemical industry, to exceptional fruitfulness, after a decade and a half of material efforts and creative intelligence.

[Question] Describe a few of these efforts.

[Answer] First, those in investments. Romania has invested enormously in the development of its chemical industry, with the main effort being directed toward the creation of one of its basic subbranches: petrochemistry, which had barely been founded in 1965. It permits the better utilization of raw material, especially crude oil and methane gas. This year, for example, petrochemistry is producing by itself about 60 percent of the value of the production of the chemical industry, while its percentage was only 48.7 percent just 5 years ago. It is, as a matter of fact, the most dynamic sector of the branch, even if the achievements up to now still do not satisfy us. However, let us return to investments. In a decade and a half, the funds allocated by the state have grown 4.7 times, from 1965 to 1980, a period in which no less than 173.6 billion lei have been invested. Thus, over 1,500 new capacities and facilities have been put into operation, of which I would like you to note a few. Consequently, petrochemical complexes have been built in Borzesti, Brazi, Pitesti, Rimnicu Vilcea, Teleajen, Midia-Navodari and Timisoara, chemical fertilizer combines in Piatra Neamt, Tirgu Mures, Craiova, Tirgu Murele, Navodari, Arad, Slobozia and Bacau, plants for artificial and synthetic threads and fibers in Savinesti, Braila, Iasi, Roman and Vasului, there being under construction the plant in Cimpulung Muscel, which will be the biggest in the country, then plastic-processing enterprises in Bucharest, Buzau, Iasi, Orastie and Focsani, as well as the Bucharest "Danubiana" Tire Factory, enterprises for rubber technical articles in Pitesti, Bucharest, Tirgu Jiu and Dragasani and the medicine factory in Bucharest. However, I want you to bear in mind that the rates of growth of production in the chemical industry surpass those of investments (8.1 as compared with 4.7--as I mentioned earlier). This was possible only through the promotion of modern technologies, the optimum dimensioning of the capacities, as well as by means of intense research activity having the goal of keeping pace with the latest technological achievements on a world level. The scientific research in the field of chemistry has been one of the basic elements of the effort of intelligence that I mentioned earlier, seeking to increase the competitiveness of our products in the world, to reduce the importation of technologies, to increase its own contribution to carrying out the scientific programs. Between 1950 and 1965--it is good for you to note--our ministry registered a low number of patents, whereas over 2,000 inventions in the field of chemistry, some of them of great impact in the realm of science in the world, were patented between 1965 and 1980.

[Question] Indeed.

[Answer] Founded in 1970, the Central Institute for Chemical Research grouped together all the departmental research institutes and the research centers and laboratories within the centrals and combines, as well as the research activity in the specialized institutes and departments of higher education. Comrade Acad Dr Engr Elena Ceausescu has personally supervised and has coordinated the country's entire activity of scientific research in the field of chemistry, concentrating the forces on the major problems and providing all the needs for introducing domestic research into production

as rapidly as possible. "Let us shorten the periods"--such has been her permanent motto, which she has imparted to all of us. In this way, remarkable achievements have been made in the organic-synthesis industry, whose presence is making itself felt in all branches of national industry. By the way, nearly 30 percent of the materials used to make the Olteit automobile are products of the chemical industry! Of the highly valuable research, I would mention the elucidation of theoretical problems of kinetics and synthesis, problems of basic research, which have opened up a wide horizon for the creation of new types of elastomers, then the preparation and purification of monomers, the synthesis of specific catalysts, studies on structure and the relation to the physical-mechanical properties of the polymer, methods of stabilizing the polymers obtained, and others. In short, the manufacture of specific stereoe elastomers, that is, of synthetic rubber, is of very great importance to the Romanian economy, and Comrade Elena Ceausescu's contribution has been decisive in this direction, just as in many others. There was a time when the degree of development of a chemical industry was determined according to the production of sulfuric acid, related to the number of inhabitants. To make sulfuric acid already means a notable feat. We made only 28 kg per capita in 1965, and we reached 94 kg last year--however, the level of development, the superiority of the technologies used today, the equipment that we have, and the complexity of the production processes now allow us quite different value comparisons.

[Question] For example?

[Answer] You can note a few comparative data, in physical outputs, in comparison with the outputs in some industrially more developed countries, such as the United States, France or the GDR. Thus, in kilograms per capita: for ammonia, 94.3 in the United States, 38.1 in France, 83 in the GDR and 176.4 in Romania; for plastic, 55.5 in the United States, 51.8 in France, 45 in the GDR and 33.6 in Romania; for ethylene, 58 in the United States, 36 in France, 10.8 in the GDR and 19.1 in Romania; for propylene, 29 in the United States, 19.9 in France, 8.4 in the GDR and 14.3 in Romania; for synthetic threads and fibers, 16 in the United States, 5 in France, 7.4 in the GDR and 8.2 in Romania; and for synthetic rubber, 11.4 in the United States, 9.1 in France, 9 in the GDR and 11.2 in Romania.

[Question] Comrade Minister, where does Romanian chemistry stand in the world?

[Answer] According to the level of development of chemistry, on the basis of the statistical data Romania is in 10th place in the world, which certainly represents a very worthy place. Regarding the exportation of chemical fertilizer, however, we are in fourth place in the world. Here I would like to make a supplementary comment. While the country's exportation in the field of chemistry amounted in 1965 to a small range of products--gasoline, diesel oil, in general, petroleum products--we now export, in particular, petrochemical products, having a higher degree of utilization, through deep chemicalization and other modern procedures. Such are

products of polyethylene, tires, synthetic threads and fibers, medicines. In terms of level, the exportation of chemical products has grown over 22 times between 1965 and 1980, contributing effectively to balancing the country's balance of payments. I spoke earlier about the exportation of chemical fertilizer. However, let us not forget to specify that the production of chemical fertilizer is making itself felt to the full in domestic agriculture. Thus, while there were only 7.2 kg per hectare of arable land, including vineyards and orchards, in 1965, and we had reached 68.1 kg in 1970, there are now between 280 and 285 kg of fertilizer per hectare, that is, about 4 times more than 10 years ago.

[Question] What other such spectacular increases can you mention?

[Answer] As is known, the main indicator of the economy has now become physical output. The question thus strikes me as timely. The increases in the volume of physical output are almost all spectacular, as follows. In the current year, as compared with 1965, the production of sulfuric acid has grown 4.4 times, that of fertilizer 14.5 times, synthetic threads and fibers 8.2 times, plastics and synthetic resins 10 times, synthetic rubber 11 times, medicines 5.5 times, detergents 7.8 times, cosmetics 8 times and so on.

[Question] How many people now work in the chemical industry?

[Answer] Over 300,000, as compared with 90,500 in 1965. However, this increase does not tell the whole story, since the development has also been achieved on the basis of growth in productivity of utilization of high technologies, and other things. However, it must be borne in mind that today a much higher degree of qualification than 15 years ago is required of all of them, including nearly 250,000 workers, in accordance with the maturation and modernization of the branch to which they belong. The problem of qualification and improvement is thus a very important one.

[Question] On the occasion of presenting the Central Committee's report on the RCP's activity in the period between the last two congresses and on the party's future tasks, at the 12th RCP Congress, Comrade Nicolae Ceausescu said: "The chemical industry will register an annual rate of development of nearly 10 percent--it being oriented more decisively toward the better utilization of raw materials and energy." Thus, how are the coming years for Romanian chemistry?

[Answer] The concentration of the efforts in the whole activity in the chemical industry especially with regard to the complex utilization of raw materials is foreseen. As a matter of fact, while maintaining the same quantity of crude oil subjected to processing as in 1980, we will have to provide an increase of nearly 1.7 times in the production of plastic, 1.8 times in the production of synthetic threads and fibers and 1.6 times in the production of synthetic rubber--all by substantially raising the degree of chemicalization, with so-called deep processing being used more and

more. Thus, we will have to "wring" more from the same ton of crude oil, obtaining a higher value. Moreover, the rate of growth of production for the products with an advanced degree of processing is even higher, reaching between 15 and 22 percent! In 1985, it will be necessary for us to completely meet the domestic demand for the main groups of chemical products. Romanian chemistry will reach the level of that in the very developed countries from an industrial viewpoint. Then, we will hardly be able to remember where we started. But we will have to remember!

12105

CS0: 2700

SHORTCOMINGS IN ZOOTECHNICAL SECTOR

Bucharest ERA SOCIALISTA in Romanian No 13, 5 Jul 80 pp 4-6

[Article by Emil Petrache, deputy minister of agriculture and the food Industry: "A Radical Turning Point in Zootechnical Production"]

[Text] Since a modern, intensive and highly productive Romanian agriculture is essential to overall economic growth and the program to raise the entire people's living standard, it is being constructed intensively on many levels. Every year means a further step in modernization of agricultural production, in development of state and cooperative socialist property, and in conversion of all agricultural units into strong production centers capable of producing large and diversified quantities of products at low costs. The Romanian government is concentrating considerable material and financial resources upon modernization and development of the technical-material base of agriculture and consistently militating, through the prepared programs, for rational use of the land and greater economic effectiveness, for improvement of planning and the forms of management, for better production organization and greater material incentive, and for intensification of socialist democracy, all of which reinforce the efforts of all agricultural workers, who are devoting their entire creative ability to growth of agricultural production and of labor productivity, while also intensifying the process of converting agricultural production to a form of industrial activity.

A long-range view of the complete implementation of this planned objective gives us a complete picture of the historical period marked by the Ninth Party Congress, whose decisions inaugurated a qualitatively higher stage for agriculture and the Romanian village, with profound implications not only for this basic sector but in general for the national economy as a whole.

The measures to construct a modern and highly productive agriculture and to radically change agricultural production conditions by gradually eliminating the essential differences between agricultural and industrial labor call for a priority on intensive development and modernization of zootechnology in order to bring the output of this important sector up to 50 percent of the total agricultural output in a short time.

With strong state support, zootechnology has been developed on the basis of the modern concept of concentration and specialization of production, proceeding in the last two five-year plans to intensive methods based on industrial technologies of animal husbandry and exploitation. Over 37 billion lei were allocated in the current five-year plan alone, and these funds are being used to build new zootechnical capacities and modernize the existing farms, to develop the mixed fanners industry and improve natural pastures, to modernize the factories and laboratories producing biostimulants, to import highly productive breeds of livestock, etc. At the present time, 618 complexes are producing over 70 percent of the socialist sector's meat output and the entire output of eggs. In 1979 the total output of meat was up 26 percent from 1975, that of eggs was up 31 percent, and that of milk was up 27 percent. Zootechnology's share in the total agricultural output reached 42 percent.

Despite the results obtained, livestock production is still below the actual potentials and fully justifies Comrade Nicolae Ceausescu's criticisms at the recent Working Conference with Personnel in Zootechnology. Because of the unsatisfactory situation in this sector, the workers are being supplied according to the plan provisions "not by increasing the zootechnical output adequately but by annually decreasing the export quotas. This has created serious problems in the balance of foreign payments because of the extensive imports of raw materials and materials and especially because petroleum prices have increased by several times in the last few years."

Intensive growth of zootechnical production is a standing requirement necessitated today not only by the needs of the national economy but also by the lags in that sector. Therefore the effort toward substantial quantitative gains is synonymous with the effort to raise the birth rates of all species of livestock, to develop and diversify the fodder reserve, to qualify personnel and stimulate scientific research, to introduce methods and technologies of the industrial type on a wide scale, and to specialize production.

Provision for high birth rates of all livestock species and thorough organization of their reproduction are the keystone of zootechnical development. Upon careful reconsideration of the activity in this field, from the ministry down to each farm, steps must be taken to reach a birth rate of 85 percent in 2 years at most, taking that as a minimum level for an efficient zootechnology. According to some calculations, although a birth rate of about 80-82 percent has been reached, instead of the 85 percent specified in this five-year plan, the number of cattle would have been over 2 million more and would have permitted slaughter of more than 1 million head for consumption in addition to increasing the numbers of animals. Failure to achieve the birth rates and the weight gain deprived the national economy of several hundred thousand tons of meat a year, several million hectoliters of milk, hundreds of millions of eggs and thousands of tons of wool.

Every state or cooperative agricultural unit and every zootechnical complex has real potentials for increasing the numbers of livestock. It is important to make good use of the zoovegetal conditions everywhere to obtain births and organize reproduction.

It is necessary in the first place to provide for a quantitatively and qualitatively balanced fodder supply, because that is the only way to observe the feed formulas and it provides the animals with proper feed rations. This is particularly necessary because in addition to the difficulties (more or less objective) encountered in securing the quantitatively and qualitatively balanced fodder supply, every year many coarse fodders and even hay are left to the will of fate in the fields and large quantities of corn are not harvested in time, causing this concentrated fodder to deteriorate. Last year the 708,000 hectares planted in fodder crops on the agricultural cooperatives produced only 4,200 feed units per hectare, while the state agricultural enterprises obtained only 5,470 feed units from 257,000 cultivated hectares as compared with a normal yield of 8,000-10,000 feed units per hectare. Moreover because of the inadequate supply of equipment for harvesting, transporting, preserving and preparing the fodders, large quantities of them are wasted in the fields, impaired or insufficiently used to fodder the animals. This year provides a significant example of the great deficiencies in fodder procurement, when many agricultural units did not even have one resource in March although large quantities of straw and cornstalks were left in the field and destroyed, burned or plowed under, impairing the quality of the plowland.

Once these harmful practices are eliminated, optimal correlation of the zootechnical production plan with the fodder reserve must be secured.

If this aim of vital importance to zootechnical progress is to be accomplished, it is first necessary to increase the average yield of fodder crops per hectare, and to make efficient use of the 4.2 million hectares of natural pastures and hayfields.

The attitude must be abandoned once and for all whereby many agricultural units treat fodder production as a kind of Cinderella, locating them on the poorest lands and often depriving them of the technologies characteristic of high yields.

Reconsideration of the role of fodder crops in accordance with the requirements of the industrial type of zootechnology and on the basis of Comrade Nicolae Ceausescu's directives set forth in his speech at the Working Conference with Personnel in Zootechnology will bring about optimal conditions for diversification of the fodder supply and its quantitative and qualitative balance in keeping with the aims of zootechnical production. This will also permit intensive use of the millions of hectares of natural pastures and hayfields, which have a twofold economic effect under the present circumstances. On the one hand a large number of brood cattle and sheep can be raised at lower costs, and on the other hand great savings in energy are made because when feeding on pastures the animals "harvest the fodders themselves," so to speak, as contrasted with the situation on the zootechnical complexes, where the feed is chopped mechanically and much energy is consumed.

In the second place, the crop structure and the livestock output must be substantiated realistically, according to the soil and climatic conditions. If more consideration were given to the principles of zoning agricultural

production, in many counties including Ghera, Mehedinți, Vâlcea, Vrancea et al. corn cultivation would no longer be in large proportion in the hill zone, where there are large areas of lands with an acid reaction that are unsuited to corn crops. In Arad County, in the plains area, where 6,000 kg of corn can be obtained per hectare, corn comprises about one-third of the crop structure, while in the hill zone, where 600-1,500 kg per hectare are obtained annually, it amounts to about 70 percent. It would be suitable to raise clover crops in the hill zones, since they provide 30-40 tons of green mass per hectare because of the favorable soil and climatic conditions. In this way a plentiful fodder supply can be secured that can provide for development of animal husbandry in keeping with the great existing potentials and overcome the present situation, wherein zootechnology is far behind in the hill zone because of the shortage of feed.

Sound organization of activity in the field of preparation and administration of fodders is no less important. For this purpose the Institute of Animal Nutrition, in collaboration with a wide circle of zootechnical engineers and veterinary physicians in production, must determine the formulas for fodder preparation according to the best results obtained in the agricultural units. In this way each zootechnical complex, knowing precisely the foddering standards and what quantities of fodders it has to receive, will be able to manage its fodder supply efficiently in accordance with the planned livestock output.

Development of the formulas for fodder preparation is not and cannot be any end in itself. Balanced rations depend not only upon the way these formulas are compiled but also upon the quality of the fodders. Hence the vital importance of punctual harvesting and proper storage of the fodders.

Optimal performance of this activity will depend heavily upon implementation of Comrade Nicolae Ceausescu's directive to the effect that the big zootechnical complexes should have a center of their own for storing fodders, the managements of these units thus being directly responsible for procuring and managing the fodder supply according to the established formulas. This also eliminates useless increases and sometimes even doubling of the cost of feed, which unjustifiably burdens the costs of livestock products.

The following point should be made in connection with fodder quality. When the proportion of silage corn in the feed is very high, its nutritive effect is reduced if it is not properly harvested and stored.

For this reason it is advisable from all viewpoints and especially the economic one to allow for the quality of the fodders in compiling the formulas for preparation and administration of fodders, so that the feed rations will fully contribute to the effective growth of zootechnical production with a lower input of feed units.

Zootechnical production cannot be increased in any way, but only with high productivity and the lowest possible costs per unit of output, ensuring a considerable gain in economic effectiveness.

These indispensable requirements for high profitability make the necessity even more evident of concentrating the zootechnical workers' efforts upon the qualitatively intensive factors as one of the basic problems of the progress of this highly important production sector. The emphasis is especially necessary because in quite a few agricultural units the costs per unit of output are far above the planned ones because of serious deviations from the prescribed technologies, and they are rising every year. For example, a ton of poultry meat produced in Buzau County costs 16,100 lei, or 30 percent more than in 1975. Excessive costs per unit of output are also recorded in the case of beef and mutton.

Consumption of feed units for a gain of 1 kg in weight is also increasing, but the weight of the animals upon slaughtering is below the economic level. In 1976, 9.2 units per gain of 1 kg were consumed in fattening cattle while 10.1 units were consumed in 1979. These supplementary increases of feed, which are also true of hogs and sheep, ultimately raise the cost of meat, milk, and eggs and consequently impair economic effectiveness.

The practice of slaughtering livestock at an uneconomic weight, below the prescribed one, is equally harmful to the national economy and deprives the market of considerable quantities of meat. Attainment of medium weights on delivery, exploiting only 50 percent of the animals' productive potential, resulted in a loss of 8,750 tons of meat in the state agricultural enterprises and one of 11,800 tons in the agricultural cooperatives in the first 5 months of 1980.

Experience shows that every year the zootechnical complexes produce different outputs, although all of them benefit by the same technical-material inventory and have personnel qualified to apply the operational technologies. Many zootechnical complexes like Orastie (Hunedoara County), Spataresti (Suceava County), Pascari (Iasi County), Vinatori (Galati County) et al. in the cooperative sector, as well as Iermit (Mures County), Husi (Vaslui County) et al. in the state sector, regularly obtain gains of over 750-800 grams a day and losses through mortality below 1.5 percent. They deliver the young cattle at weights of more than 370-400 kg each and make profits of 500-1,500 lei per ton of meat delivered.

Yet other complexes, through neglect of the operating technology, show small gains in weight, heavy losses through mortality, low outputs of meat per unit of premises and poor economic results. The results are significant that were obtained in the last 4 years by the Orastie (Hunedoara County) and Barcanesti (Prahova County) intercooperative complexes, both built in the same year and having the same production capacity.

Development of a modern, highly productive and profitable zootechnology based on better technologies and scientific advances requires improved training of the labor force.

Over the years radical changes in the quality of the labor force in crop and livestock production have been made by the extensive modernization of the technical-material base. Yet the qualifications of the zootechnical labor force

*As well as the profitability of zootechnical production.

tend to lag behind the rate of introduction of equipment. This is explained, as a matter of fact, largely by a number of failings in the use of modern equipment and technologies, in the application of scientific advances, and in organization and management of production.

As Comrade Nicolae Ceausescu pointed out at the above-mentioned working conference, these considerations demand improvement of the agricultural education system and of the school programs and textbooks in order to thoroughly qualify personnel trained for zootechnology.

The zootechnician or veterinary is called upon to think technically and economically and to militate for the new in zootechnical activity. The way the zootechnician is regarded at his production point is closely related to this. The county agricultural organs often practice a petty supervision of the zootechnical specialists, limiting their opportunity to think or act according to the specific conditions on the farm or zootechnical complex. When we add to this the large number of meetings the specialists have to attend, we realize how little time they have to concentrate on organizing and rationalizing production.

	Orastie	Barcanesti
Capacity (accommodations)	5,120	5,120
Average daily gain (grams per day)	835-1,020	715-368
Losses through mortality (%)	0.5-1	2.2-3.7
Average weight upon slaughtering (kg)	373-398	280-330
Amount of meat delivered to state (tons)	2,300-3,500	1,800-2,200
Annual profits (1,000's of lei)	5,200-5,400	-
Annual losses (1,000's of lei)	-	6,000-16,450

A modern and intensive zootechnology requires development and intensification of studies on creation and improvement of livestock breeds, reproduction and selection of the animals, development of fodder quality, and technologies for intensive stock raising in complexes of the industrial type. Though there are a number of achievements, scientific research in this field is behind. Scientific research on cattle, instead of a comprehensive effort to improve the indigenous breeds like Baltata Romaneasca, Bruna de Maramures, and Siementhal, has concerned itself more with "substantiating" the purchase of cows from foreign countries. The same is true of sheep, hogs and poultry.

To be of real help in zootechnical activity and to encourage the development of this sector and bring it about by the provided solutions, scientific research must fully perform its essential role of substantiating new methods of raising and exploiting livestock, of improving the indigenous breeds, etc.

Romanian zootechnology has excellent conditions for meeting the present and future demands of Romanian society. It is important to work regularly, with enthusiasm and complete competence. From the ministry down to each individual farm, we must militate for active, specific and purposeful work, creating the

conditions for development of widespread opinion against bureaucratic, irresponsible practices, which cover up inactivity with meetings and paper or with plans for formal measures. A revolutionary approach and a high sense of responsibility, order and discipline must be manifested everywhere.

5186

CSO: 2700

ROMANIA

TYPIFICATION PROPOSED FOR AGRICULTURAL MACHINERY INDUSTRY

Bucharest REVISTA ECONOMICA in Romanian No 30, 25 Jul 80 pp 13-14

[Article by Hera C. Bucur and Ion Hera Bucur]

[Text] The full and overall mechanization of farm operations is one of the major factors of greater output and productivity in this basic economic branch.

The concept that underlay the provision of our agriculture with the required mechanical means was formulated and set forth as early as at the Ninth Congress of the Romanian Communist Party by the party secretary general, who stated: "A major part of state investments will be used to expand and diversify agricultural mechanization. The socialist units in agriculture will be provided with a wide range of tractors and machines and this will ensure full mechanization in growing wheat, corn, potato and sugar beet, expansion of mechanization in the production and preparation of feed, in vegetable, grape, and fruit-tree growing, and in operations on slopes."

As a result of the constant furtherance of this concept, the number of tractors in agriculture went up from 81,000 low-power tractors in 1965 to some 138,000 higher power tractors in 1979. It is envisioned that in 1985 their number will be about 145,000. During the same period (1965-1979) the number of self-propelled grain-harvesting combines rose from 200 to 34,470. In 1985 there will be almost 42,000 units. The number of plows increased from 86,000 to 107,000, of cultivators, from 23,000 to about 40,000, of sprinklers and dusters, from 5,400 to about 22,000, and so forth. Moreover, sprayers for chemical fertilizer, mounted tillage cutters for pastureland, cutters for vegetable and grape growing and other machines are in operation and being serially manufactured.

In the last 15 years, the arable area per tractor decreased from 121 ha to 68 ha. As a result of expanding mechanization, the proportion of the labor force in agriculture went down from 60 percent in 1965 to about 28 percent now and the total grain output rose from 12 million tons to almost 20 million tons.

The current tasks pertaining to mechanization in agriculture, as stated in the documents of the 12th Congress of the Romanian Communist Party and the address of Nicolae Ceausescu at the Work Meeting held at the Central Committee of the RCP on 29-30 May 1980, are focused on providing tractors, combines and other farm machines characterized by a quantitative and qualitative level that would permit "completion of planting in 15 days, wheat harvesting in 8-10 days and corn harvesting in at most 25-30 days and smooth completion of operations in vegetable, fruit-tree and grape growing and fodder gathering."

In this context the rise in the number of farm machines will be mandatorily coupled with type-size diversification, generated on the one hand by the need for gradually expanding mechanization for some procedures which previously were performed manually only (for instance, in viticulture, pomiculture, farming on slopes which are barely accessible to equipment, and so on), and, on the other hand, by the concomitant operation of new types of machines and older types which continue to be used for a while, until they are inactivated. This situation, aside from the known positive aspects also has a negative impact because the excessive diversity of types results in greater expenses in operation, repairs and provision of spare parts, significantly lengthens the idling periods of the machines, and complicates the training process for machine operators.

The implementation of the principles of typification in the building of farm machines and in aggregation involving a small number of basic types of these machines provided with a multitude of farming facilities are chief avenues for resolving the diversity-simplification dilemma in production and maintenance of agricultural technology. Therefore, the examination of the type-size pattern and models of machines in agriculture with drawing practical conclusions is of great interest, especially now when we are finalizing the systems of machines for the various crops and animal species -- a program that blends into the overall typification of materials and products in the economy.

Methods for Typification of Tractors and Agricultural Machinery

Typification is a program of outstanding economic and technical importance which was highlighted as a priority requirement by the party secretary general during the profound analyses at the Central Committee of the party and at the work tours of large industrial units including the Bucharest "Semanatoarea" Plant, in April 1980. Far from being an aim in itself or a situational issue, it is the course which derives from the very basic principles of every economic industrial activity according to which a modern production process only demonstrates its qualities in terms of efficiency when it attains a high level of productivity, minimal technological loss and low consumption rates in terms of energy and raw materials. In light of these requirements we believe that typification in Romanian agricultural technology must proceed along the following directions of upgrading and increase in economic efficiency:

- a. Reduction in the number of models and type-sizes of machines, decrease in the number of intermediate powers, elimination of some obsolete types from production and substitution of a smaller number of types with superior technical features and performance;
- b. Development of a small number of new models characterized by broad applicability by gearing them for several similar procedures. To this end, there is the need for turning out, for the various groups of procedures, types of basic machines with easily adaptable outfits. This would meet the need for obtaining combined equipment in broad utilization areas;
- c. Development of a set of machines for several simultaneous operations. This is aimed at increasing the rate of completion of farm operations, upgrading their quality and minimizing fuel consumption. The calculation of the power balance of the tractor combined with some type of farm machine shows that about 30 percent of the power is used for the motion of the power vehicle (the tractor) and the rest of 70 percent remains as available power at the hook where the operating machine is attached. As the number of simultaneously aggregate farm machines increases (once, twice, three times) the possibility of the occurrence of idle runs of the tractor diminishes accordingly and the ratio between actual power and consumed power, respectively the output of the tractor, increases;
- d. The production of the multifunctional aggregate-combines for wheat, corn and other crops which ensure, concomitantly with the gathering of the basic product, also the recovery of the vegetable mass, so that after one run of the aggregate combine the area is completely clear.

The following passages will focus on issues pertaining to the prospect for following the typification directions indicated above, for tractors and groups of agricultural machines classified according to the major kinds of operations.

a. Tilling

One may state that the power required by tractors primarily depends on the range of basic operations needed for corresponding tilling -- plowing and disking. The other agricultural operations for which simple machines are now used (harrowing, fertilizing, planting, herbicide spraying, mowing, raking, and so forth) performed with current machines, which by and large are low-efficient, do not fully require the available power of all types of tractors.

The range of powers for tractors now extends from 45 HP to 180 HP. This large number of tractor type-sizes poses difficult problems for both the supplier of machines and for users. In consequence of the diversity of tractors appears the great diversity of plows for common tilling procedures, where some 15 types are involved. Calculations indicate that we could give up the 65 HP tractor, which now is a basic factor in our agriculture, in light of the number of units in operation and the kinds of procedures where this tractor is used. It was proved that for the difficult deep plowing and disking operations,

the 65 HP tractor does not have adequate power and in very many cases it is necessary to couple two such tractors, for instance in drawing disk harrows. On the other hand, in performing farm operations with mounted machines, for instance the SPC-6 seeder, the 65 HP tractor does not provide proper stability on slopes. Moreover, for harrowing, mowing, raking and other operations, the 65 HP tractor is not sensibly utilized because much of the power is not used.

Giving up the 65 HP tractor and replacing it by the 80 HP tractor offers the prospect for proper completion of complex operations, on a single run, such as: disking + harrowing + sowing; sowing + herbicide spreading, tilling + fertilizing, and so forth. As for the utilization of the 65 HP tractor in the grape, fruit and vegetable growing industry and even in animal husbandry for the same reasons of using the installed power it seems sensible to replace it completely with tractors in the 45 HP range.

In summarizing the above statements it follows that replacing the 65 HP tractor with the 80 HP tractor offers agriculture the following technical-economic advantages:

1. Reduction of fuel consumption by about 30 percent per unit of surface because of the possibility which is created for using aggregate machines which permit simultaneous completion of several operations on a single run;
2. Reduction of the time needed for completing farm operations, hence greater possibilities for fitting the period for completion of works into the optimal time.
3. Cutting the number of machine operators by more than 20 percent;
4. Upgrading the quality of works on slopes, with favorable effects on output per unit of surface;
5. Minimizing, by elimination of the 65 HP intermediate power, the number of type-sizes of farm machines, respectively increasing the size of manufacturing series;
6. Wisely using the range of powers for the tractors which will continue to be turned out (45-80-180 HP).

b. Soil Fertilization

Romanian agriculture now uses six major types of machines for spreading amendments and chemical and organic fertilizer. One of the machines (Type MIC-1) has a 450 kg bunker and is geared only for spreading chemical fertilizer. Because of the guaranteed productivity of the machine (about 30 ha/shift in the case of powder and maximum 60 ha/shift in the case of pellets) there is an increase in the number of work cycles for the same area, coupled with a rise in the amount of fertilizer which is administered per unit of surface.

The other types of machines are larger in size: two types (MA-3,5 and MIA-12) are destined for transportation and administration of chemical fertilizer and amendments. However, their active component is the type of distributor which is used for MIC-1. Three other types of machines (MIG-2,2, MIG-5 and MIG-12) are geared for organic fertilizer.

For the chief types of tractors which will continue to be turned out for our agricultural sector (45-80-180 HP) it is possible to adopt the approach to only using three types of basic facilities -- one for vegetable growing + fruit growing + vine growing combined with the 45 HP tractor, another for more difficult operating conditions combined with the 80 HP tractor, and the third type for the 180 HP tractor, geared for vast areas in the plain and lowland regions. All these three basic types have as a common element the distributor (which constitutes the active operating part) turned out in two variants -- for chemical fertilizer and for organic fertilizer respectively -- which are identical for the three types of machines.

c. Straw Cereal Harvesting

At this stage, after harvesting, the straw stays in the area and is baled with the aid of PPF presses, with the same area of land being compacted three times: by the self-propelled harvesting combine, the baling combine (tractor + press) and the combine for gathering and conveying bales (tractor + trailer + bale loading conveyor).

The approach advanced -- based on typification and combined machines -- consists in providing self-propelled combines with baling machines and bale throwers, with a bale collecting trailer being attached to the combine during operation. Advantages follow in terms of avoiding extra compacting of the land and fuel savings, as this operation system involves proper organization of work.

d. Gathering of Corn (Kernels)

The same as straw harvesting, corn harvesting is a very important operation in our agriculture, one which has a direct and immediate impact on the grain output that is obtained on the unit of surface. Corn gathering is now based on the self-propelled combine and involves either kernels (when the combine is provided with the CS4M cob picker and the ET thrasher) or husked corn (when the CS4M corn picker and the ED husker are attached to the combine).

In both cases the corn stems remain in the area, chopped with the TIT machine, or mostly, unchopped, as they occur after the passage of the combine. This means the loss of a large amount of plant matter which could be well used in animal feed. For instance, 1 ha of area under corn (kernels) yields 4000 kg cobs (stems) which is equal to 560 nutritive units that serve to obtain 1400 l milk or 70 kg meat. These aspects were broadly and critically dealt with by the party secretary general at the recent work meeting with cadres in the animal raising industry. He outlined clearcut measures to improve the situation.

It is true that our agriculture now has machines for recovery of corn stems, but in most cases this is only done partially. Recovery involves successive runs, meaning extra operations, using baling presses, fodder gathering combines (CSU and CAF) or, more recently, gathering and stacking machines (MAC-6) and self-loading platforms for stacks (PAC-6). The major disadvantages of the procedures used involve the utilization of some low-efficient machines (CSU), repeated compacting of the same lands, extra fuel consumption and great loss of plant matter. Even in the context of proper organization of the recovery program, under the current conditions in terms of equipment, it is not possible to recover more than 50 percent of the plant matter obtained per unit of surface.

The necessary approach involves providing the self-propelled combines with standardized farming machines geared for stem picking simultaneously with cob picking. This minimizes production loss, results in full recovery of the plant mass and clears the area for deep winter plowing in the optimal period.

The few examples cited indicate that the use of typification, unification and combination in building tractors, combines and other farm machinery in its various forms -- arrangement and optimalization of the type-size lines of machines, elimination of intermediate lines, production of polyvalent machines and of multifunctional aggregate combines for various crops -- can result in rapid modernization and thereby provision of agriculture with high-standard machines of superior quality and with greater efficiency.

11710
CSO: 2700

STATUS, OUTLOOK FOR NATURAL GAS PRODUCTION

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 5-8 Jul 80 p 8

[Article by Radmila Jovanovic]

[Text] In natural gas production, transport and consumption, Yugoslavia is still "in second gear." Natural gas is the most effective substitute for oil. While the gasification of the northern parts of the country is essentially complete, work in the east has been delayed. Over the medium-term, there are great possibilities for domestic machine production.

In BTU's, 900 kg of crude oil are equivalent to 1,000 normal cubic meters of natural gas, which has a markedly greater efficiency and which is at least 4,000 dinars cheaper. Last year in Yugoslavia 2.8 billion cubic meters of natural gas were consumed. Of that, 1.8 billion cubic meters were produced domestically and were the equivalent of 2 million tons of crude oil that would have cost \$500 million. Last year, domestic natural gas had a smaller share in consumption than in the preceding year, when 1.93 billion cubic meters were used.

According to the medium-term plan, last year consumption was to approach 3 billion cubic meters of domestic natural gas and the same amount of imported natural gas; these figures will not even be achieved this year. The reason is simple: Domestic consumption is not yet ready to receive even close to the anticipated quantities.

Since the contracts with the Soviet shippers of natural gas were clear-cut, it was necessary to reduce the deliveries of this fuel from domestic sources. Concerning both the production and the consumption of natural gas domestically, the medium-term plan was much more ambitious than that, only to have to operate in second gear in terms of utilization as an energy and technical fuel. As things stand, only in the coming medium-term will it be possible to coordinate the potentials of production, acquisition and consumption.

Although in the past 15 years the share of natural gas in the consumption of primary energy increased from 1.8 to about 7 percent in 1979, divergences from planned quantities are significant, particularly when the

role of this fuel as a substitute for disappearing and ever-more-expensive crude oil is considered. This year it is most likely that a total of 4 billion tons of domestic and imported natural gas will be consumed, or 1.2 billion more than last year. That will substitute directly for about 1 billion tons of crude oil and, calculated at the lowest world market prices for this liquid fuel, a savings of about \$250 million will be affected. Yet it must be admitted that, in terms of the potential for production and acquisition, natural gas could have a more significant influence on the country's energy situation and could contribute more to economic stability.

Consumption Has Limited Explorations

Considering the steadily rising prices for crude oil, and the reserves and conditions for the import of natural gas, Yugoslavia has many reasons to count on an increased share of natural gas in energy consumption. Both in the country and elsewhere in the world, natural gas is obtained either together with crude oil (accounting for 40 percent) or from separate natural gas wells. The lack of coordination, however, between potential and actual consumption of natural gas has been reflected in explorations and investments in its exploitation. Natural gas has more often been found incidentally when crude oil was being sought.

Until now most explorations have been in places where the highest likelihood was projected for finding crude oil, or more specifically, in the sedimentation basins of Pannonia, the Dinaric Alps and the Adriatic coast line. The most successful explorations have been in the Pannonian basin, from where so far the entire Yugoslav production of both crude oil and natural gas has come. The INA-Naftaplin enterprise in Zagreb and Nafta in Novi Sad so far have produced 50 percent each of the total annual production of natural gas in the country. That has made possible a steady growth in domestic production of natural gas that lasted until 1978, when due to the obligations of previously contracted imports from the Soviet Union and delays in the construction of the natural gas pipeline, it was necessary to slow and reduce domestic production.

If the hopes based on previous results of explorations in the country are realized, then it will be possible prior to 1985 to obtain the first quantities of natural gas from the Adriatic Sea, as reported at a recent session of the Executive Council of the Associated Producers of Yugoslavia.

The exploitation of natural gas in the coastal region is by no means an empty wish, for the explorations conducted so far have not been in vain. In eight places from the northern limits to the Montenegrin coast, significant quantities of gas have been discovered that promise possibilities for serious exploitation.

Greater domestic explorations also form a basis for anticipated future production of natural gas in the country. It is expected that this year 2.2 billion normal cubic meters of natural gas will be produced; that

figure will reach 4.5 billion in 1990. The greatest rate of growth in domestic production should be in the years of the coming medium-term period, particularly in the first 3 years.

Production Estimates Until 1990

According to data of INA-Naftaplin and Nafta-gas, domestic gas production until 1990 will follow the trend shown below:

Year	Consumption of Natural Gas in billion cubic meters
1980	2.2
1981	2.6
1982	3.15
1983	3.5
1984	3.75
1985	4.05
1986	4.15
1987	4.3
1988	4.35
1989	4.46
1990	4.5

Specialists state that the composition of the natural gas discovered and produced in Yugoslavia until now has been largely homogeneous and free from impurities. An exception is found in the gas from the Srbobran and Nolvva gas fields, where there are more significant amounts of CO₂. At these fields, structures have been built to separate out the carbon dioxide. Otherwise, the BTU content of domestic natural gas is about 8,400 Kcal/cubic meter.

Imports From Several Countries

Currently natural gas is being imported from the Soviet Union, but not in the quantities called for by the agreement. According to the agreement, an annual total of 3 billion tons should be delivered. Calculating that consumption will increase rapidly, Nafta-gas in Novi Sad and Jugopetrol in Skopje are planning to make agreements for annual deliveries to their consumers alone totaling an additional 3 billion tons from the USSR and some quantities from Iraq.

There is also the possibility that in the future, natural gas will be imported from Algeria, and in fact, negotiations have already begun on imports of up to 1.5 billion cubic meters of natural gas via the Algeria-Tunisia-Italy pipeline. If these negotiations are concluded successfully, it can be expected that imports will begin in 1985.

The Yugoslav policy of importing gas particularly from the Soviet Union and the Middle East is not at all coincidental, but is directly linked to the distribution of world reserves of natural gas. Of the total known

world reserves of natural gas in 1979, 36 percent were concentrated in the Soviet Union, 24 percent in the Middle East, 13 percent in North America, 9 percent in North Africa, 8 percent in Western Europe, 5 percent in the Far East, 3 percent in South America, and 2 percent in China and Eastern Europe. In 1981 Yugoslavia will import 2.85 billion cubic meters (which continues to be less than the contract stipulates), while in 1985 that figure will reach 6.35 billion and in 1990, 7.35 billion cubic meters.

If the anticipated production and consumption of natural gas is realized in the years ahead, then the share of natural gas in total consumption of primary energy in Yugoslavia would increase from the present approximately 7 percent this year to at least 11 percent in 1990. Because, however, of the specific manner in which this fuel is transported, its consumption and consequently its production continues to be directly tied to the degree of completion of the natural gas pipeline system, which until recently was at a very low level.

The past period was one of relatively little production and consumption, which was largely limited to Slovenia and northern portions of Croatia and Vojvodina. Consumption was at the level of domestic production until 1978, when imports from the USSR into Slovenia, and to Croatia via the Austrian gas distribution system; last year these imports were extended to Serbia, Bosnia and Hercegovina via Hungary.

The exceptional properties and efficiency of natural gas as an energy and technological fuel were confirmed much earlier, and they were reflected in the structure of natural gas consumption. In 1976, about 34.9 percent of the natural gas consumed was used in the chemical industry, with 27.4 percent used by other industries, 13.37 percent going for general consumption, and 13.1 percent for the production of electrical energy. The remainder went for various other uses.

Gasification Is Taking Place Nearly Everywhere

Natural gas is regarded as one of the most valuable types of fuel, and by that fact alone its use in electrical power plants for producing power represents the least rational manner of its utilization. Specialists say that it is best to use it as a technical fuel in industry and as a raw material for petrochemical uses.

Until 1958, the chief consumer of natural gas was the general consumption category, which is understandable under the circumstances at that time. That year the 100-km Janja-Lipa-Zagreb main gas pipeline was completed, and in 1960 the section from Popovaca to the Sisak steel mill was hooked up, so that the 2 largest consumers in Croatia were connected. Since then about 800 km have been constructed in the gas distribution network, connecting the entire gas distribution system including producing fields in the republic and entry points for imported gas, with some 40 of the most important consumer centers.

The pipelines built so far in Croatia form a unified system whose major branches follow the trans-Sava river main route from Novaka to Zagreb, the trans-Drava-Slovenian main route from Osijek to Varazdin with a transverse line from Durdevac to Ivanic Grad and from Rogatec to Zagreb with a transverse line from Zabok to Ludbreg. This is the greatest consumer network in the republic, with 300 km of branch lines of gas pipeline, thus assuring supplies for all consumers from 2 directions. This in turn guarantees great dependability of supply. Under construction is a system for automatic data collection and control of the gas pipelines with the aim of maintaining the optimal transmission of natural gas.

The first quantities of natural gas began to be shipped in Vojvodina in 1952, but significant amounts in shipment and production date from 1963, when the Kikinda-Elemir-Boka-Jermenovci-Pancevo natural gas pipeline was built. This pipeline was later extended to the metallurgical complex at Smederevo. By the end of 1971, the Vojvodina natural gas distribution system contained 450 km of pipeline. At the end of 1975, the implementation of the program for gasification of the eastern part of Yugoslavia was begun, with the intent of constructing a shipment and distribution system on the territory of Vojvodina and Serbia. Its principal line was formed by the main route from Horgos to Senta, Batajnica, Belgrade, Paracin and finally to Nis. At Batajnica the main gas pipeline divides sending a main line to Zvornik and Sarajevo, thus supplying Bosnia and Hercegovina with gas. This system is additionally connected to the Hungarian gas network, through which it links up with lines for importing gas from the Soviet Union.

So far the main gas pipeline sections Mokrin-Senta, Horgos-Senta and Senta-Batajnica have been built, with a total length of about 190 km, 38 km of supply lines and about 126 km of distribution gaslines. Three compressor stations have also been constructed, and at the end of last year the Batajnica-Zvornik main line was finished.

In the past 2 years, a gas pipeline system has been built in Slovenia through which natural gas is imported from the USSR and distributed to the major consumers in the republic. The backbone of the system is the main gasline running from Sersak on the Yugoslav-Austrian border to Rogatica, where it divides and heads toward Croatia to the east and toward Ljubljana and Nova Gorica to the west. From the main gaslines, branches supply the industrial centers of Ruse, Lendava, Ravne, Hrastnik, Kranj, Skofja Loka, Trsic, Jesenice, Anhovo and others. The total length of the main line and its branches is 650 km.

In 1979, a main natural gas pipeline was built in Bosnia and Hercegovina connecting Zvornik and Sarajevo, with a length of 120 km, thus beginning the first phase of gasification in that republic. At the end of last year, the first imports of natural gas from the USSR began via the Serbian gas pipeline system.

The data point out clearly that the consumption of natural gas would have been much greater if the construction of gas pipelines and the conversion of consumers to this fuel had developed according to the plan.

The years 1975-1980 saw the most intensive development of natural gas usage ever in Yugoslavia. The implementation of the gasification programs for Serbia, Bosnia and Hercegovina, Croatia and Slovenia was advanced, and a large part of these programs was completed. Nevertheless, it must be admitted that progress in these undertakings was more rapid in the northern regions of the country, while in the eastern regions smaller steps were taken.

In Serbia, the first phase in the construction of a main gas pipeline from Batajnica to Paracin has yet to be completed. Its length will be 192.5 km, and branch lines from it will add another 170 km. That includes gasification in Belgrade, which has yet to begin.

The anticipated pipeline network in Serbia was to be built in the present intermediate term, but it has not even been started. It has been announced that this year the project should at least get started.

Sarajevo and Belgrade Are Delayed

Although gas pipelines have reached Sarajevo and Belgrade, the industries and inhabitants of these cities will not be receiving natural gas on time. Due to lack of resources, Belgrade will only begin its gasification program this year.

The task of gasification in Sarajevo has not lagged because of resource shortages, as has been the case in Serbia. The inhabitants of Sarajevo had firmly resolved to protect their natural and working environment by converting to natural gas in industrial and general consumption uses, and they set aside sufficient resources in good time. Many aspects of the program have been finished. Progress has become snarled, however, because of the slowness and lack of responsibility of those to whom the planning and construction of storage tanks was entrusted. Since all the preliminary tasks were completed in a timely manner, and the resources that were set aside have largely been spent, recently the City Assembly of Sarajevo demanded that the real truth concerning the delays in gasification of the city be established and the citizens informed, and that the guilty parties be called to justice.

In Five Years, the Natural Gas Network Has Doubled

After the construction of the first phase in Serbia, the main gas pipeline is to be extended from the Batajnica-Paracin line to Nis, with hookups to Krusevac, Aleksinac, Zajecar and Bor.

In Croatia, further development will depend on supply sources, both domestic and through imports. So far, the results of exploration in the northern

Adriatic area have opened up the possibilities of gasification of the Istrian peninsula and Rijeka areas. If the gas reserves in that part of the Adriatic are larger than the needs of the region, a connecting pipeline will be built running to Pula, Rijeka, Karlovac and Zagreb, thus connecting the coastal region with the continental natural gas pipeline network. A similar situation would occur with eventual production in the central Adriatic region and the Dinaric region.

Should sufficient gas reserves be discovered or secured through imports to surpass the quantities called for in the coming medium-term period, then consumption could simply be increased on the natural gas system that has already been constructed in Croatia, for the quantities of natural gas from Algeria that are expected to be delivered in the coming medium-term will not call for any significant expansion of the existing gas distribution.

In Bosnia and Hercegovina, plans call for the construction of the Slavonki Brod-Maglađ-Zenica-Sarajevo gas pipeline, which will be supplied with gas imported from Algeria via Slovenia and Croatia. If imports of liquefied gas could be arranged via the Adriatic, then a gas pipeline would be built connecting Ploče and Sarajevo, Maglađ and Tuzla, and Maglađ, Banja Luka and Prijedor.

An expansion of the transportation system is also anticipated to utilize the gas that will be obtained from Algeria via Tunisia and Italy. For more efficient shipping and a steadier supply of natural gas to consumers, the gas distribution systems of Croatia, Vojvodina and Serbia will probably be connected. It is most likely that in the next medium-term period a gas distribution system will also be constructed in Macedonia that will be supplied from the USSR via Bulgaria. In fact, construction is expected of a Skopje-Tetovo-Gostivar-Ohrid line, followed by a Skopje-Titov Veles-Negotino-Djevdjelija line and branch lines for Titov Veles, Stip, Kocane and Strumica, and Negotino, Prilep and Bitolj.

The existing natural gas distribution system in Yugoslavia, with a total length of 2,800 km, was built during the past 25 years. In order to achieve by 1985 the planned consumption of the currently assured supply totalling 7.05 billion cubic meters of natural gas, it will be necessary at least to double the present gas distribution system in the next 5 years.

Plans for further gasification of the country offer great potential utilization of domestic machinebuilding industries. Unfortunately, these industries' participation so far has been insignificant and has been restricted to 2 or 3 factories that have performed minor secondary operations. In the main, foreign firms have carried out the entire task.

At the recent conference on the gasification of Yugoslavia in Zagreb, there was talk that domestic machinebuilding industries had the capabilities to perform at least 30 percent of the major tasks in this phase of gasification of the country, if only they were more organized and if there were more cooperation between them and the investors.

STATUS OF MERCHANT FLEET DESCRIBED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 17 Jul 80 p 3

[Excerpts] The Yugoslav merchant fleet has at its disposal 339 ships with a total carrying capacity of 3.7 million tons, and the average age is 11.2 years (31.2 percent are older than 15 years and 31.7 percent are somewhat less than 15 years old). The age structure of the fleet has been steadily worsening during the last few years.

Last year, for example, the fleet increased by 6 percent in the number of ships and about 28 percent in capacities. If the merchant fleet is not renovated in the next medium term plan, there will be 266 ships listed as older than 15 years at the end of 1985.

It is well known that many world ports do not allow the docking of ships older than 15 years, so that it is not hard to calculate what kind of consequences would ensue if our fleet is not renovated soon. However, the renovation is also necessary because of the increase in competitiveness.

Although domestic ships transported 23.8 million tons of cargo last year, participation of the fleet in Yugoslav foreign trade is not satisfactory, while the transport of domestic goods by foreign shippers continues to be high (the Yugoslav merchant fleet participated with 27.6 percent in import-export).

All of this is a reason for the shippers to fight for better positions, by increasing competitiveness. A prerequisite for this is the renovation of the fleet, as a result of which there would be a decrease in the outflow of foreign exchange which is paid to foreign shippers who transport domestic goods and, also, the funds allocated for insuring such old ships would be reduced.

According to data by Lloyd's register on total capacities of the world fleet, of the 412.8 million gross registered tons, 62.3 percent are under 9 years old, while this ratio is 37.1 percent in our country; 19.7 percent of the world's ships are over 15 years old, while 31.2 percent are older than 15 years in our country.

Consequently, the fight on the world market cannot be won with the fleet such as it is now. Therefore, it has been proposed that the medium term plan be started with the construction of 56 ships in domestic shipyards and the purchase of 9 ships abroad, in accordance with the international agreements. In this respect, the ships built in domestic dry docks should be treated as imports and the construction would be financed from the earmarked funds. Thus full employment would be insured for the Yugoslav shipyards, while the shippers would pay this back through the increased foreign exchange inflow.

CSO: 2800

SERBIAN ENTERPRISE COOPERATION WITH KOSOVO ECONOMY

Belgrade BORBA in Serbo-Croatian 23 Jul 80 p 4

[Excerpt] Cooperation by the "Ineks" business association in Belgrade and its work organization "Intereksport" with the Kosovo economy which began 2 decades ago will enter a more qualitative and intensive stage this year which should bring more business as well as long-term connections based on income relations; through "Ineks" several organizations of associated work in Kosovo will market about 40 million dinars worth of products abroad. This large business association will make additional efforts to market both at home and abroad toys from the factory in Srbica and screws from the factory in Kosovska Vitina.

Joint work [during these 20 years] by Kosovo Province and this large organization has produced five factories which employ about 1,500 workers. In addition to the above factories, three other factories (the "Fazita" carpet factory in Pristina, the "Mineks" plant in Urosevac, and the munitions factory in Srbica) are independent collectives with high capital accumulation. After the latest agreements, new larger joint arrangements are expected, as well as the elimination of some weaknesses and omissions which have recently led to the undermining of trust by both sides and which reflected a lack of understanding and also traditional [i.e., out-moded] buying-selling relations. Future cooperation will be based on clear income principles and interests, as well as on efforts to make the development of Kosovo succeed.

The "Intereksport Kosova" basic organization of associated work will soon work out a program and join in building capacities for small-scale business in Kosovo, while "Ineks" will take part in building a 300-bed hotel on Mount Brezovica.

CSO: 2800

MACEDONIA OUTLINES PLANS FOR AGRICULTURAL DEVELOPMENT

Belgrade BOMBA in Serbo-Croatian 7 Aug 80 p 5

[Excerpt] One of the long-term strategic commitments in the development of Macedonia in the next decade is the production of enough food to meet domestic needs but also production of significant amounts of food for export.

In the current plan period alone over 6.9 billion dinars has been invested in agriculture in the republic, but total investments are certainly more than this, if one considers investments by private farmers. In the next plan period a high rate of investment is also expected. About 4.7 billion dinars will be committed to projects to develop the agrocomplex alone in Macedonia, i.e., the third state of this development.

More than 22,000 hectares will be irrigated through construction of new water management systems, the largest of which is the "Strezevo" system; then the "Djevdjelijsko" and "Skopsko polje" systems are expected to provide a long-term water supply to farm areas in these regions, said Kiril Roglev, member of the executive council of the Macedonian Economic Chamber.

Problems connected with buying up of agricultural produce and the working out of comprehensive agricultural development programs in the republic are being solved.

Realization of these important plans is possible only through full use of the 551,573 hectares of arable land. But this area is diminishing in contrast to the increased investments in the economy. From 1953 to 1978 the amount of arable land in Macedonia declined by 42,000 hectares, or 1,900 hectares a year. This area is being abandoned or lies fallow, part of it suffers from erosion, while part is being planted in forests. At present 26.3 percent (146,000 hectares) of the total arable area in Macedonia is not being cultivated.

Research carried out in the last few years shows that the amount of cultivated land continues to decline. Of the 146,000 hectares of arable land which are not being cultivated, 64.2 percent is in the private sector, 11 percent (16,000 hectares) is in the socialized sector, while about 36,000 hectares are social property not included in any organized form. The basic

reasons that arable land is abandoned is that most is located in hilly areas where the migration from village to city has been very high and where more and more older farmers are. Roglev said, "Other reasons [for abandonment of farms] are the growing construction of infrastructural facilities, the building of industrial capacities, the expansion of cities, the building of weekend houses which are usually constructed on the best land. Other reasons lie in the unresolved problems of the agrocomplex, low procurement prices for certain crops and the resulting lack of interest by farmers to grow them.

Next spring hard wheat, especially the "Mexican" variety which has good yields, will be planted. About 50,000 hectares of these [grain?] lands will be planted, on the other hand, in income crops and orchards, especially pit-fruit orchards for black and red cherries and plums, as well as walnut groves, etc. About 40,000 hectares will be converted to pasture for cattle raising. Nevertheless, about 55,000 hectares will continue to be uncultivated, or 10 percent of the total arable land in the republic.

Much is also expected from a higher level of pooling labor and resources. Especially great attention is being devoted to creating basic organizations of cooperating farmers and of farm cooperatives. This would make possible the use of new technology and thus higher production.

Roglev said that results have already been achieved. Some agricultural combines such as the "Crvena zvezda" PIK (Agroindustrial Combine) in Stip, the "Lozar" PIK in Titovo Veles, and the "Strusko polje" PIK in Struga have activated over 3,800 hectares. It will be necessary to increase the land property because the average farm in Macedonia at present amounts to about 2 hectares which considerably reduces the possibility for higher yields and income. It is also planned to stop the building of urban settlements, industrial facilities, and weekend houses on arable land. Building permission will be given only to those who prepare for agricultural production the same amount of area as their building [or facility] occupies.

CSO: 2800

BRIEFS

GAS CONSUMPTION, IMPORTS--In the first half of this year 37.7 percent more natural gas was consumed than in the same 1979 period, which is very encouraging. Higher gas consumption means less pressure by consumers on oil and coal, of which there will be considerably less made available through production and imports during the heating season. A total of 3.5 percent less natural gas compared to last year was produced from the INA (Oil Industry of Zagreb) and Naftagas (Novi Sad) fields which imports increased considerably over those of previous years. Thus, 744 million cubic meters of natural gas were imported in the first half of this year from the USSR, or 130.3 percent more than in the same 1979 period. Natural gas production in Yugoslavia has been reduced not because sources have dried up, for instance, but because of imports. As known, planned consumption for this medium-term period has not been achieved, and imported gas was contracted for much earlier. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16-18 Aug 80 p 12]

TEXTILE EXPORTS--In the first half of this year the Yugoslav textile industry exported 40,412 tons of goods, thereby earning 5,552,207,000 dinars. This is 0.2 percent less in volume but 34.9 percent more in value than in the same 1979 period. The cotton industry sold 17,888 tons of goods in this period, earning 1,374,034,000 dinars or 9.3 percent more than in the same 1979 period, although the volume of exports was 16.5 percent less. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 19 Aug 80 p 4]

RICE PRODUCTION--Abundant spring rains and unusually low temperatures during planting worried rice producers in eastern Macedonia which is the largest rice production area in our country. Exceptionally warm days later, however, have already brought the rice crop within the limits of normal development. Thus, 45,000 tons of rice are expected from the 9,000 hectares planted. A problem still exists in regard to the [low] procurement price. The harvest is expected to begin the end of September. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 20 Aug 80 p 12]

MACEDONIAN COAL PRODUCTION--In the next 5-year period lignite will be one of the primary fuels in industry and in the production of electric power in Macedonia. About 2 billion dinars will be invested to open new mines and modernize and expand existing ones. It is planned to increase lignite

production from the present 1.3 million tons to 6.3 million tons annually. About five-sixths of this production will be used for industry and for the production of electric power in new thermoelectric power plants (near Kicevo and Bitolja), while the remainder will be allocated to general consumers. Increased exploitation of lignite in Oslomej near Kicevo and development of the Suvi Dol surface mine near Bitolja will serve to meet completely the needs of nearby thermoelectric power plants which will produce about 27 billion kilowatt-hours of power annually, or almost the same amount being produced by all plants in the republic now. Macedonia has also recently been trying to supply consumers with quality coal from the Zivojno-Germijan mine in the Pelagonija area. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 8 Aug 80 p 8]

VOJVODINA LAND REDUCTION--In the last 10 years the agricultural area [other than plowed land] in Vojvodina has declined by about 24,000 hectares, while plowed land has declined by 26,000 hectares. At the same time the amount of unfertile land has increased by about 23,000 hectares. The provincial secretary for agriculture, the food industry, and forestry calls exceptionally alarming the fact that land areas are increasing which are used for purposes other than agricultural production. At the same time, the land under socialized agriculture has increased by 62,109 hectares in the last 10 years. Most of this was purchased by agricultural organizations. It has also been estimated that the existing system of pensioning older farmers and taking over their land has not produced results because the pensions are small and older farmers therefore do not want to renounce their land which then remains uncultivated. Between 12,000 and 17,000 hectares of arable land remains uncultivated each year for various reasons. In addition, the high level of underground water makes some land unusable. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 20 Aug 80 p 11]

ALLOCATION OF FOREIGN EXCHANGE--In 1980, foreign exchange with a total value of 25,871,118,000 dinars will be available to the federation and distributed as follows: 3,177,174,000 dinars for material reserves in the federation; 21,723,702,000 for organs of the federation and for carrying out the rights and duties of the federation; 868,140,000 dinars for the federal fund for granting credits for the development of underdeveloped republics and provinces; and 102,102,000 dinars for the solidarity fund for non-aligned and developing countries. [Excerpt] [Belgrade SLUZBENI LIST SFRJ No 43 1 Aug 80 p 1429]

CSO: 2800

END

END OF

FICHE

DATE FILMED

Sept. 24, 1980